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DECEMBER 22, 1951

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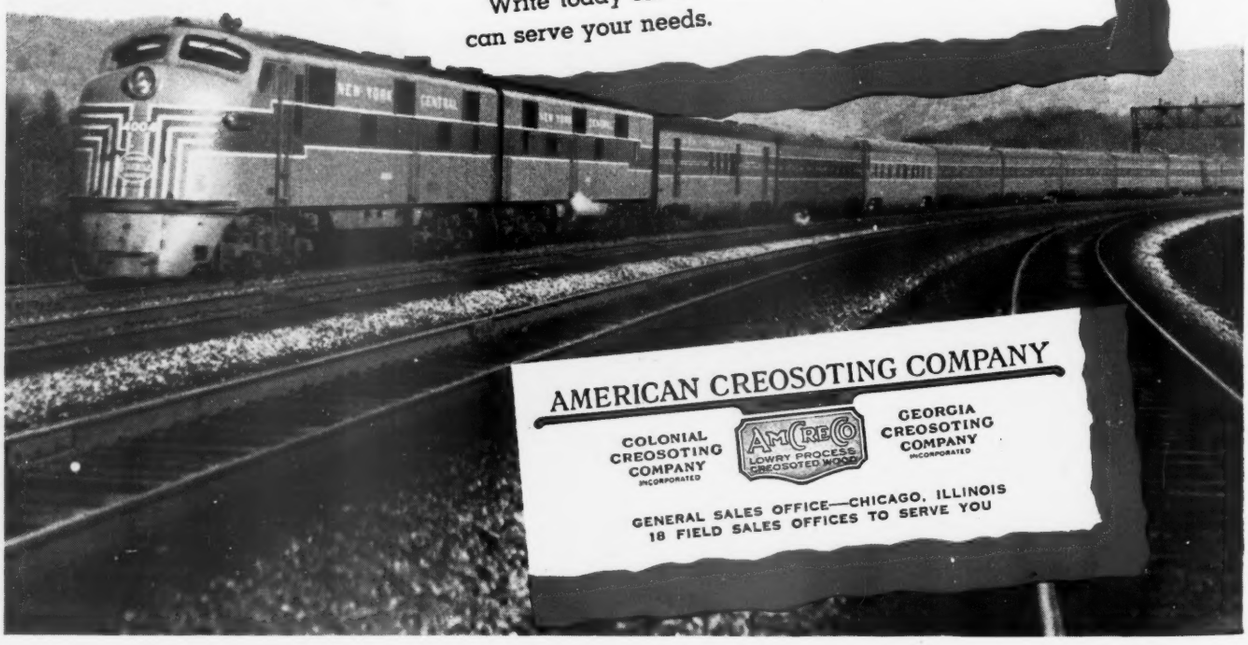

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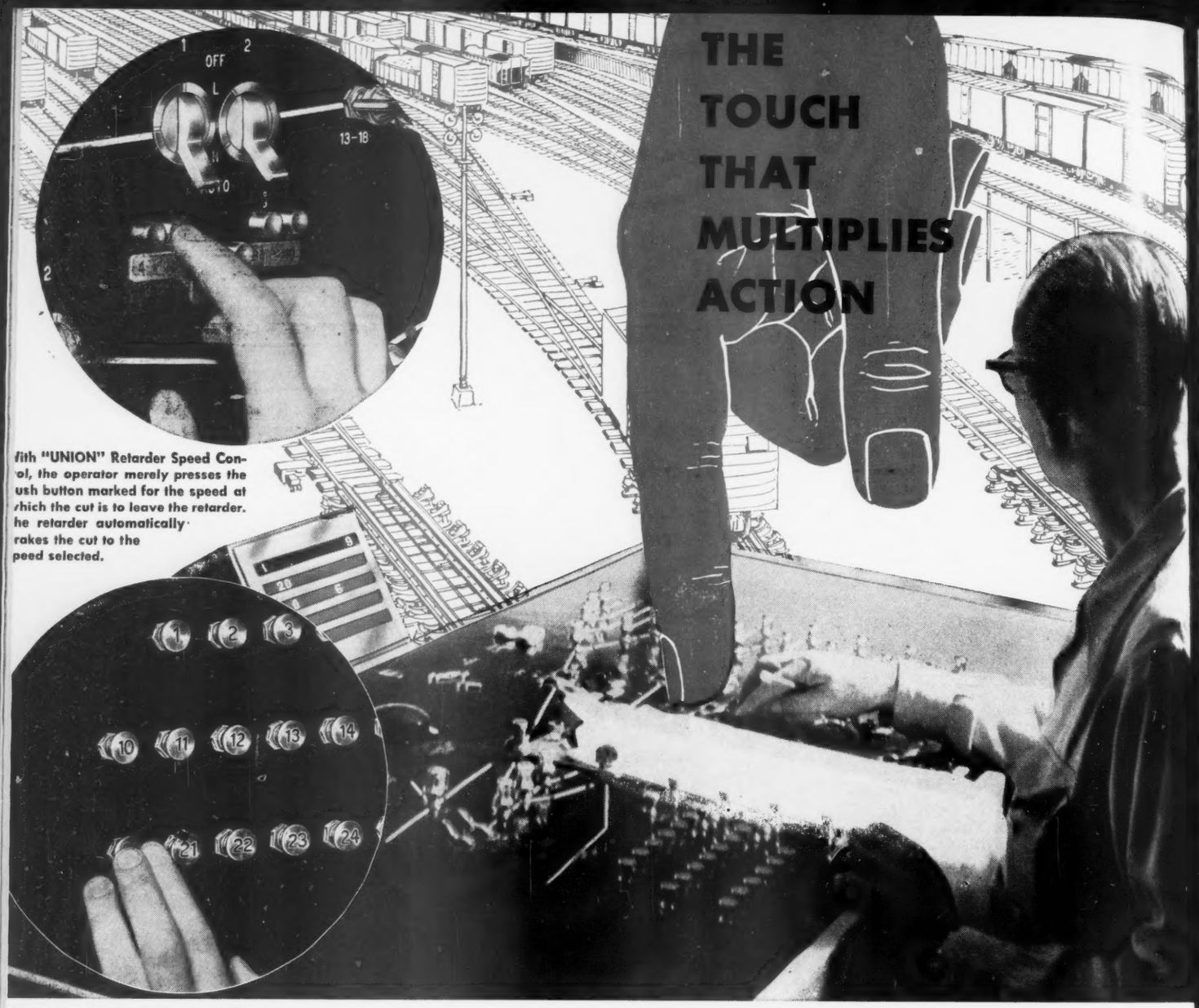

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WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

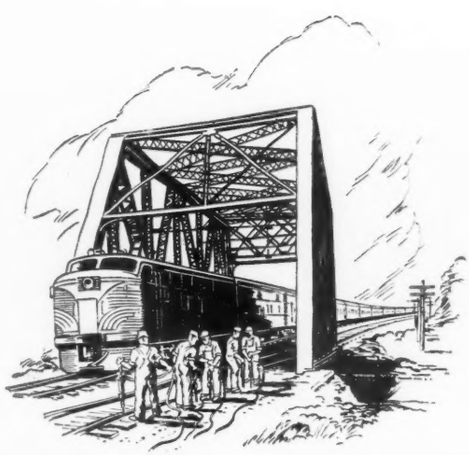
Operating revenues, ten months	
1952	$8,738,353,866
1951	8,586,370,241
Operating expenses, ten months	
1952	$6,680,407,118
1951	6,700,217,593
Taxes, ten months	
1952	$1,052,093,753
1951	984,057,603
Net railway operating income, ten months	
1952	$ 853,008,994
1951	732,823,912
Net income, estimated, ten months	
1952	$ 594,000,000
1951	492,000,000
Average price railroad stocks	
December 16, 1952	69.00
December 18, 1951	54.15
Car loadings, revenue freight	
49 weeks, 1952	36,031,147
49 weeks, 1951	38,572,618
Average daily freight car surplus	
December 13, 1952	16,392
December 15, 1951	6,969
Average daily freight car shortage	
December 13, 1952	709
December 15, 1951	3,793
Freight cars delivered	
November 1952	5,929
November 1951	9,824
Freight cars on order	
December 1, 1952	87,657
December 1, 1951	129,158
Freight cars held for repairs	
November 1, 1952	94,843
November 1, 1951	91,726
Average number of railroad employees	
Mid-November 1952	1,238,688
Mid-November 1951	1,258,232

In This Issue . . .

FREIGHT RATES ARE COMPETITIVE PRICES! And they should therefore be made like competitive prices, says G. Lloyd Wilson, in the article which leads off the feature section (page 33). Separately included within his article are a set of brief, easily understood "tests" for determining whether or not rates are "healthy"; some equally brief "ways to produce clumsy rates"; and some suggestions as to places where cost data are needed in developing rates. Under present highly competitive conditions in transportation, nobody, says Dr. Wilson, benefits when rates are considered like taxes or tolls, to be arbitrarily assessed.

A NEW YARD and diesel facilities to cost a total of $8.5 million, are to be built by the Seaboard Air Line at Hamlet, N. C. Other important news developments last week were I. C. C. approval of consolidation of the Central of Pennsylvania with its parent Central of New Jersey, and of purchase by the Union of some Bessemer & Lake Erie trackage; experimental inauguration by the ACL and SAL and connecting lines of three-day delivery of perishables from Florida to Washington and points north to New York; and a D.T.A. announcement that material shortages are still a "major problem."

WHAT'S THE LONG-TERM OUTLOOK for railroad movement of coal? This question, important to all railroads and vital to many, has been made the subject of exhaustive analysis by Dr. L. K. Sillcox, of the New York Air Brake Company. Some of the comprehensive facts which he developed in the course of that analysis are outlined on pages 36-39; they deserve close attention—particularly because Dr. Sillcox construes them to mean that the railroads may have to make important changes in their coal-hauling rates and policies within the not-too-far-distant future.



IT'S NO IDLE THREAT, E. Grosvenor Plowman told the Traffic Club of Minneapolis at its annual dinner, to talk about possible nationalization, first of the railroads and eventually of all forms of transportation. To "remain immune from the machinations of self-serving socialists," Mr. Plowman said, railroads, under "requisite leadership," must make "constant progress"—"economic and financial liquidation and reinvestment, abandonment of one activity to facilitate expansion of another." Excerpts from his talk begin on page 42.

TO HELP RAILROAD MANAGEMENTS realize their maximum effectiveness by supplying necessary information on time, in usable form, and in sufficient quantity; and by showing how things

WEEK AT A GLANCE

can be done less expensively, are the objectives of one of the railroad industry's newest organizations—the Systems & Procedures group. A report of that association's recent Chicago meeting starts on page 47.

STARTING WITH "HUMAN RELATIONS," the Baltimore & Ohio's new supervisory development program is designed to expand positive leadership and foster the urge to do a good job. How the program began and how it is organized is told herein, beginning on page 40.

In Washington . . .

ANOTHER NEW RECORD in capital expenditures by Class I railroads isn't likely to be set in 1952—but the estimated total of $1,333 million will probably be the second highest ever recorded in any given year, and it won't be too far below 1951's all-time peak of $1,414 million. Details, reproduced from the "Monthly Comment" of the I.C.C.'s Bureau of Transport Economics and Statistics, are given in the news pages.

EVERY TAXPAYER ought to feel a little better as a result of a report just submitted to the House Committee on Public Works by one of its subcommittees. Briefly, the report, as outlined in the news columns, suggests that the main committee "participate more actively in exercising adequate control" over rivers and harbors and flood control programs. Now, if the report will only be implemented by action! Offhand, it would be hard to think of any better place for the government to begin a much needed economy program than by clamping down on pork-barrel attempts to glorify every muddy drainage ditch into an "inland waterway."

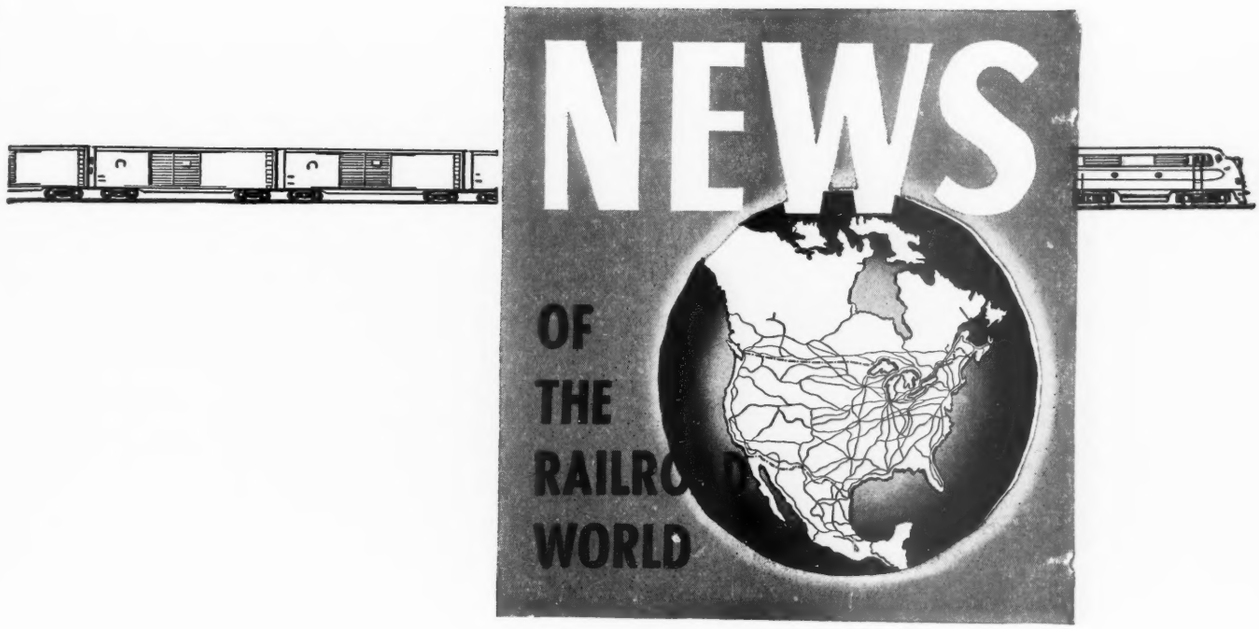
REVENUE, $1; WAGES, $8. That, briefly, and reduced to its simplest terms, is the story behind the railroads' costly passenger-baggage service, as revealed in the latest "Monthly Comment" of one of the I.C.C. bureaus. To be sure, the actual amount involved is relatively small—the net loss is only around $20 million—but how many other businesses are expected to provide a service which costs them, out-of-pocket, eight times what it produces in revenue?

AT LEAST THREE Class I railroads will have new presidents as they go into the new year. One of the three, the Detroit, Toledo & Ironton, will be headed by David E. Smucker (above); he is to succeed Stanley P. Ruddiman, who is retiring after 19 years as the DT&I's chief executive. Another change will be made on the Chicago & North Western System, where Paul E. Feucht will succeed R. L. Williams. And the third executive shift—all details of which have not yet been revealed—will be on the Monon, whose present president, John W. Barriger, is becoming vice-president of the New Haven, as detailed on page 49.

. . . And Elsewhere

THE ROADS THEY TRAVEL "clearly show the damaging effects of heavy truck loads," say the members of the New York State Rural Letter Carriers Association. For the second successive year, therefore, they are campaigning for a reduction in their state's truck load limit from 22,400 lb. per axle to 18,000 lb., as required in most other states, and as recommended by the American Association of State Highway Officials.

IF THE NEW CONGRESS considers, as it may, an increase in first-class postage rates, we understand the Air Transport Association may plump for a flat 5-cent stamp on all letter mail, leaving to postal authorities the decision as to air or ground movement over any particular mail route. The air lines would benefit, of course—but it would simply be another case of making the many users of a given service pay for privileges enjoyed by only a few.



Less Than 2/3 of Railroad Investment Is Capitalized

Total capitalization of the railroads, as of December 31, 1951, remained less than two-thirds of their investment in road and equipment.

This, along with related data and comparisons with prior years, is shown in the accompanying table, reproduced from the latest "Monthly Comment" issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

The bureau pointed out that "financial reorganizations and voluntary debt reduction on the part of many carriers have had a marked effect on the capital structure of the railways since 1940." Its further discussion of the figures included the following:

"If the investment figures for 1920 and 1951 . . . are reduced by the amount of accrued depreciation reported for each of these years ($1,081 million in 1920 and $6,812 million in 1951), the percentage relationship of total capitalization to net investment was 107.8 in 1920 as compared with 81.2 in 1951.

"The corresponding percentages," the "Comment" continued, "for funded debt are 60.7 and 42.2 and for capital stock 47.1 and 39. In connection with these figures, attention is called to the fact that mandatory depreciation accounting for fixed roadway property, other than track and appurtenances, did not become effective until January 1, 1943."

COMPARISON OF RAILWAY INVESTMENT AND CAPITALIZATION
(Class I, II and III line-haul railways and their lessor companies)

Year ended Dec. 31	Miles of road owned	Investment in road and equipment	Capital actually outstanding			Percent capitalization of investment		
			Total	Funded debt[1]	Stock	Total	Funded debt	Stock
		Millions	Millions	Millions	Millions			
1920	242,200	$19,849	$20,229	$11,386	$8,843	101.9	57.4	44.5
1930	232,040	24,955	22,913	12,901	10,012	91.8	51.7	40.1
1935	231,762	24,639	22,556	12,631	9,925	91.5	51.2	40.3
1940	225,083	24,837	22,146	12,376	9,770	89.1	49.8	39.3
1945	218,100	26,162	19,565	10,142	9,423	74.8	38.8	36.0
1950	218,604	29,558	18,917	9,733	9,184	64.0	32.9	31.1
1951	218,279	30,460	19,202	9,990	9,212	63.0	32.8	30.2
Percent change: 1951 vs. 1920	−9.9	+53.5	−5.1	−12.3	+4.2	—	—	—

[1] Covers unmatured funded debt and equipment obligations (including for class I roads the unpaid balances at the close of year on conditional or deferred payment contracts for the purchase of equipment) together with the amount of funded debt matured and unpaid as reported by class I roads and their lessor companies. The amount of such unpaid debt for class II and class III roads was not compiled but it is relatively small.

Material Shortages Still "Major" D. T. A. Problem

The major problem confronting the Defense Transport Administration, in the railroad field, is the continued allocation of insufficient materials by D.P.A.-N.P.A. to provide for expansion of railroad facilities.

This was the conclusion reached by D.T.A. in its second annual "Record of Operations." The 60-page record, covering the period from October 1, 1951, to October 1, 1952, was made public December 12.

"There is no immediate expectation of a substantial improvement in the allocation of materials for the program expansion of the railroad plant, D.T.A. stated. Intensive efforts to get the most out of the present plant must be continued, the agency said.

"The eased condition as to car loadings and car shortages has had an adverse effect on the freight car program, as allocating authorities within the government have taken the position that on a short-range basis it has not been necessary to allocate as much material to the freight car program as formerly," D.T.A. continued.

Freight-car ownership in the past two years has increased only slightly over 2 per cent, but if the scrapping program had not been held down the increase would be only about 1¾ per cent, the agency said. Older cars have outlived their economic usefulness and can be considered only part-time cars and not as an offset of new production, it added.

The D.T.A. conservation and use programs in recent months were not a cure for the basically unsound situation, D.T.A. said. It said no complete plan to meet mobilization requirements can be made until the problem of adequate material allotments is solved.

A combination of Interstate Commerce Commission service orders and voluntary cooperation was used in the past year to "stretch" existing freight car ownership, the agency continued. Major problems that had to be overcome during the year were those resulting from floods, earthquakes and strikes.

"There is widespread feeling that the shipper-carrier-government cooperation in meeting railroad transportation problems of the year is unprecedented," D.T.A. reported. James K. Knudson, administrator of the agency, prefaced the "Record" with praise for the manner in which industry cooperated with D.T.A. during the year.

Other sections in the record reviewed D.T.A.'s activities in connection with other types of transportation under the agency's jurisdiction. These include street and highway transport, inland waterways, warehousing and storage and port utilization.

This Year's Capital Expenditures Estimated at About $1.3 Billion

Gross capital expenditures made by Class I line-haul railroads in 1952 are expected to total about $1,333 million, the second highest annual total on record. The all-time peak was 1951's $1,414 million.

The $1,333 figure was built up on the basis of actual expenditures made by the whole group of 131 reporting roads during this year's first nine months, and fourth-quarter estimates submitted by 127 roads. The bureau's compilation, which also gives 127-road estimates for the first quarter of next year, is shown in the accompanying table, reproduced from the "Comment."

ACTUAL AND ESTIMATED GROSS CAPITAL EXPENDITURES
Class I line-haul railways

Period	Number of roads	Expenditures for road Thousands	Expenditures for equipment Thousands	Total Thousands
Actual:				
January-September 1951	131	$247,258	$752,080	$999,338
October-December 1951	131	115,864	298,769	414,633
Total 1951	131	363,122	1,050,849	1,413,971
January-September 1952	131	272,950	719,556	992,506
Estimated:				
October-December 1952	127	107,241	232,883	340,124
Actual and estimated:				
Total year 1952	—	380,191	952,439	1,332,630
Actual:				
First quarter 1952	131	73,870	271,134	345,004
Estimated:				
First quarter 1953	127	82,018	219,419	301,437
Percent of change:				
January-September 1952 vs. same period in 1951 Actual	—	+10.4	−4.3	−0.7
Year 1952 (actual and estimated) vs. 1951	—	+ 4.7	−9.4	−5.8
First quarter 1953 (estimated) over same period in 1952 (actual)	—	+11.0	−19.1	−12.6

More Control of Spending for Waterways Urged

The House Committee on Public Works has been advised by one of its subcommittees that it "must participate more actively in exercising adequate control" over rivers and harbors and flood control programs.

The subcommittee, headed by Representative Jones, Democrat of Alabama, was created in 1951 to study civil works. Its advice along the foregoing lines was embodied in a report dated December 5 and made public December 15.

The subcommittee expressed its belief that "such control" as is now exercised lies "largely" with the Army's Corps of Engineers and the Bureau of the Budget. "It is the view of your subcommittee," the report said, "that the Committee on Public Works should exercise a sufficiently close supervision over the administration and execution of river and harbor and flood control laws so that it is assured that when funds are sought for the initiation of authorized projects, it approves the scope, cost, economic justification, and priority."

Calling attention to the big backlog of projects now authorized and awaiting appropriations, the subcommittee recommended that the committee call for new reports on authorized projects where the previous surveys may be obsolete. Specifically, the recommendation is that such resurveys be called for if more than five years shall have elapsed between the the time the work was authorized and the time construction is proposed to be initiated; if present plans call for changes in scope or purpose or involve changes of design or engineering features calculated to result in cost increases of 10 per cent or more; if prospective construction costs or prices of land have risen 10 per cent or more; or if price fluctuations have changed the relationship of local contribution to federal costs by 10 per cent or more.

Another recommendation of the report is that requests for appropriations be submitted "only for such of those projects or works as are positively approved for initiation" by the Committee on Public Works subsequent to receipt of reports based on up-to-date surveys. The subcommittee also recommended that "upon completion of a project a report of completion with full cost and benefit data in comparison with the originally approved project be submitted to the committee. . . ."

Data in the report indicated that in January 1952 there was a backlog of 369 authorized rivers and harbors projects on which work had not been started. Their estimated total cost was $3,174 million, as compared with $1,665 million at the time of their authorization.

Baggagemen's Wages Eight Times Revenues

Wages of road passenger baggagemen totaled about eight times the revenue received from baggage service in 1951, according to the latest "Monthly Comment" of the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.

The bureau suggested that the "relative loss" from baggage service "may be greater than in other 'head-end' services."

The figures showed that baggage revenue in 1951 totaled $2,950,107 while the wages totaled $23,563,675. The revenue figure was taken from accounts 103 (baggage) and 136 (storage-baggage); but it does not include collections by "red caps" for handling passengers' baggage. The wage figure includes what was paid to 4,318 road baggagemen, supervising baggage agents, and baggage agents and assistants.

As to the latter, the bureau said that "indeterminate amounts of additional wages in baggage service, which cannot be determined from our wage statistics," are not included in the above figures. It also pointed out that additional baggage-service expenses would be involved in the maintenance, servicing and hauling of baggage cars.

Last year's $2.9 million revenue figure amounted to only 12.5 per cent of

the $23.6 million wage figure. Comparative figures back to 1945 showed that the revenue-to-wages ratio in that year was 24.1 per cent. The revenues declined 20.5 per cent between 1945 and 1951, but the wages rose 53 per cent.

C&NW, Katy, Sign Union Shop Agreements

A union shop agreement with 13 non-operating railroad brotherhoods has been signed by the Chicago & North Western Railway Company. The agreement, which becomes effective January 1, is described by the road as "similar" to that entered into by a number of major eastern roads last August 29 (*Railway Age*, September 8, Page 11) which became effective on September 15. The agreement does not cover subsidiary C&NW properties nor does it cover the affiliated Chicago, St. Paul, Minneapolis & Omaha.

The Missouri-Kansas-Texas has also entered into an agreement presumed to be similar, and while *Railway Age* was able to obtain confirmation from Katy headquarters in St. Louis, details were not available in time for this issue.

The C&NW agreement's requirement that all employees join the union of their craft or class does not apply to excepted positions which are outside the scope of the union's general agreements as to rules and working conditions. There are numerous other excepted positions, a company spokesman stated.

Privy Council to Rule on Highway Transport Control

Decision on whether provincial or Dominion governments control interprovincial and international highway transport in Canada will be made by the British Privy Council in London. The case arises out of a protest made by New Brunswick bus operators against service being provided by an American operator, Mackenzie Coach Lines, from Maine through New Brunswick, into Nova Scotia. The New Brunswick government ruled in favor of the local operators, forbidding Mackenzie to provide local service in that province. When the case was appealed to the Supreme Court of Canada, that court overruled the provincial government, declaring that Canadian federal authorities had jurisdiction over international and interprovincial transportation. This decision was in turn appealed to the Privy Council in London—but the appeal was actually taken there by the provincial governments of Ontario and Saskatchewan — not by New Brunswick.

There is apparently considerable expectation that the council will uphold the Canadian Supreme Court in what is regarded as a borderline case, although for many years it has consistently given decisions in such cases in favor of the provinces. Canadian railroads are reported to be hopeful that the high court's ruling will be upheld, since the way would then be open for presently non-existent federal regulation of interprovincial highway transport.

MEMBERS OF THE RAILWAY OPERATION STUDY GROUP from Asia and the Far East, who are studying various phases of American railway operation, visited the General Railway Signal Company at Rochester, N. Y., on December 11. While there they witnessed a program of motion pictures (above), an illustrated lecture, and demonstrations in the G.R.S. exhibit room; inspected manufacturing and laboratory facilities in the company's plants; and visited New York Central facilities at Rochester, N. Y., and Lyons. The tour is sponsored by the United Nations.

Mexican Rail Employees Get Wage Increase

The National of Mexico is reported to have negotiated a new contract with its employees, which became effective November 16, three months before the existing contract was due to have expired. Principal feature of the new agreement is said to be a wage increase averaging about $7 per month per employee, but with lower paid workers receiving relatively larger benefits. Effective date of the new wage scale coincided with the effective date of increased freight rates and passenger fares.

RRs Have Too Many "Foul-Weather Friends"—Gordon

Canadian railways have too many "foul-weather friends," Donald Gordon, chairman and president of the Canadian National, told the Canadian Club at Ottawa on December 3.

"The railways," Mr. Gordon said, "are called upon to underwrite and guarantee the transportation requirements of this country. This quality of being indispensable ought to insure the railways a steady popularity. Actually, rail transport tends to be regarded as a standby for use in emergencies or when roads are blocked and planes are grounded."

They should, he continued, be given "at least as much encouragement and sympathetic assistance as is given to defense industry" because the railways "must be ready to demonstrate their unique capacity for efficient mass transportation, for movement of troops or evacuation of whole populations from a threatened area. To deny the railways the right to earn a subsistence level of revenues would be foolish at any time; to do so in this uncertain state of world affairs could well be tragic."

As the CNR executive spoke at Ottawa, his company and other Canadian railroads had two general rate increase requests pending in the same city before the Board of Transport Commissioners; and had resumed wage "talks" with representatives of approximately 144,000 non-operating employees. The railroads had already put into effect, despite a union "rejection," a conciliation board majority report proposing a wage increase of 16 cents per hour (*Railway Age*, December 8, page 12). One of the two rate increases, for 9 per cent, is designed to

meet that increase, so far as railroad employees are concerned; the board was scheduled to begin hearings on it December 15. The other rate increase application, also for 9 per cent, dates from last July 14; it was originally scheduled for hearing on December 8, but has now been postponed until after adjourned hearings which will be resumed on January 5, 1953, on a Canadian Pacific application to establish 6½ per cent on its net investment as a fair return on its railroad operations.

Eldon Martin Optimistic About Railroads' Future

"I don't want to dwell on railroad sins of the past," Eldon Martin, general counsel of the Chicago, Burlington & Quincy, told the Central Western Shippers Advisory Board at Omaha on December 9, "but . . . we have done our penance for the sins of our youth. Our buttocks are calloused from the kicks of politicians, pseudo-economists and others who—well into the present century—continued to charge us with sins we have forgotten how to commit—and could not commit anyway because of the red tape which government long ago began to bind us with and which, in some respects, still makes us look like a captive industry in a free economy."

Mr. Martin said that today, however, he detected evidence of a "heartening and healthy attitude" in many different quarters—in Congress, in state legislatures, in the Interstate Commerce Commission, among investors, shippers ("who are spearheading the trend"), railroad employees and even the man-on-the-street. He cited the so-called Cooperative Project of the Transportation Association of America and the report on the railroad passenger deficit problem of the National Association of Railroad and Utilities Commissioners, as further evidence of this cause for optimism.

He warned the shippers, however, that "despite these most encouraging developments and despite my belief that the railroads stand on the threshold of a new era of goodwill, progress and prosperity, we are no more than *on* that threshold. We have not yet progressed beyond it. To do this we will need all of this help which is developing—and more. But with your help—and the help of countless others who are now our friends—and under the terms of competitive equality which I see approaching, the railroads will give industry, agriculture and our national defense, the best and most economical transportation which the mind of man can conceive."

Puerto Rico's RRs Said To Need More Equipment

Puerto Rico's railroad system needs 22 additional motive power units and 600 freight cars, according to the recently issued "Report on Conditions in Puerto Rico as They Relate to the Functions of the Defense Transport Administration."

The D.T.A. report included an analysis of the Puerto Rican economy, with special emphasis on transportation. It was indicated in the report that the Caribbean island requires increased transportation facilities because of the rapid growth of its population, industry and commerce. In the case of the island's important sugar industry, it was said that transport facilities are adequate to meet present demands but that storage facilities "appear to be insufficient."

SAFETY HAS NO SECOND BEST
EARL BLACK
Carpenter B. & B.
GARY, IND.
A GOOD LEG IS BETTER THAN A CARLOAD OF CRUTCHES
STOP - LOOK - LISTEN
Then Light into It
FRED SCHWEMM
Signal Maintainer
JOILET, ILLINOIS
IT'S UNLUCKY TO HAVE AN ODD NUMBER OF LEGS, ARMS EYES
Work Safe and Save Aches and Pain
V. S. JADRNAK
Asst. Car Foreman
GARY, INDIANA
Enough ink has been spilled writing Safety Rules.
Enough blood has been spilled breaking them!
BROTHER! YOU GOTTA BE SAFE . . . TO GET TO FIRST BASE
In The Crummy . . . or Head-End
SAFETY PAYS A DIVIDEND
The Well-Organized Worker
Keeps his head . . .
Also his arms, legs and eyes.
"SAFETY FIRST BEGETS NO REGRETS."
- Walter Loo
HORSEPLAY OFTEN LEADS TO HOSPITALS
Safety Is A Good Life
Enjoy It . . .
Don't Destroy It
BOB NEWYIRK
Locomotive Engineer
"You are the Best Safety Device"
Paul F. Elliott
Be A Safe Worker Not A Safety Shirker
H. C. Carter
Asst. Car Foreman
Gary, Ind.
"A Safety Brother will protect another."
—John Valek, Jr.
THINK SAFE
This Year . . . An Ounce of Prevention May Be Worth a Ton of CHEVROLET
A COOL HEAD ON A HOT DAY IS THE SAFETY WAY
SAFETY COMES FIRST . . . THEN THANKSGIVING
HI ON LEE
Say:—
LOST TIME . . . LOST CHEVVIE

MATCHLESS SAFETY. — Employees of the Elgin, Joliet & Eastern have a personal interest in safety slogans that appear on the "J's" paper match folders. Almost all have been submitted by employees themselves.

Freight Car Loadings

Loadings of revenue freight in the week ended December 13 totaled 721,252 cars, the Association of American Railroads announced on December 18. This was an increase of 2,093 cars, or 0.3 per cent, compared with the previous week; a decrease of 31,942 cars, or 4.2 per cent, compared with the corresponding week last year; and a decrease of 51,879 cars, or 6.7 per cent, compared with the equivalent 1950 week.

Loadings of revenue freight for the week ended December 6, totaled 719,159 cars; the summary for that week, compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, December 6

District	1952	1951	1950
Eastern	123,166	131,596	136,090
Allegheny	144,470	155,413	153,671
Pocahontas	57,557	63,852	59,654
Southern	130,456	137,124	133,627
Northwestern	84,480	92,767	89,068
Central Western	121,996	127,578	130,663
Southwestern	57,034	65,200	64,122
Total Western Districts	263,510	285,545	283,853
Total All Roads	719,159	773,530	766,895
Commodities:			
Grain and grain products	44,386	54,307	51,058
Livestock	11,902	10,363	11,152
Coal	142,682	158,494	161,257
Coke	15,377	17,236	15,853
Forest products	42,019	41,388	44,473
Ore	25,976	31,539	22,148
Merchandise l.c.l.	71,833	72,487	80,909
Miscellaneous	364,984	387,716	380,045
December 6	719,159	773,530	766,895
November 29	670,167	821,776	740,165
November 22	810,922	711,447	701,551
November 15	828,723	814,258	837,458
November 8	829,198	791,403	839,880
Cumulative total 49 weeks	36,031,147	38,572,618	36,779,914

PRR, B&O File Protests On Proposed Air Line

The Pennsylvania and Baltimore & Ohio have advised the Civil Aeronautics Board they feel there is "no justification" for a railroad-owned helicopter air line between Washington, D. C., and New York City.

The Baltimore & Annapolis has filed an application with the C.A.B. for authority to institute such service. The B&A presently operates both rail and motor service between Baltimore, Md., and Annapolis.

Approval of this air line proposal is of "considerable importance" to the PRR and B&O, the roads told the C.A.B. They said a new competitor in the Washington-New York area may

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended December 13 were announced by the Association of American Railroads on December 18 as follows:

	Surplus	Shortage
Plain Box	5,478	367
Auto Box	156	24
Total Box	5,634	391
Gondola	2,050	129
Hopper	3,562	35
Covered Hopper	364	17
Stock	2,248	0
Flat	389	122
Refrigerator	1,797	15
Other	348	0
Total	16,392	709

"seriously affect" their business by further diluting sources of revenue.

The proposed B&A air service would use helicopters. The air line would serve Baltimore, Md., Philadelphia, Pa., and Wilmington, Del. on its Washington-New York runs (*Railway Age*, November 17, page 16).

Canadian Wage Increase Becomes Effective

Major Canadian railways put into effect as of December 1 the 16-cent-an-hour pay increase recommended for 144,000 non-operating railway employees by the majority report of a federal conciliation board, and will take "appropriate action" for employees not covered by union agreements.

The unions, seeking a 45-cent-an-hour raise, have rejected the majority report of the conciliation board, but indicated they now favor a minority report recommending a pay boost of an average of 26 cents. The railways originally offered a seven per cent increase.

The railway announcement explained that the 16-cent increase was being put into effect because "it is evident" that "considerable time might elapse before agreement could be reached on any of the recommendations of the report," which is now the subject of discussion between railroad and union representatives.

A railway spokesman said the increases will work out to about $25 to $30 a month for the average employee, depending upon his wage and job classification.

Competitive Pricing Key To Efficiency—Von Willer

"From a physical standpoint, the railroads are in position to handle a much larger volume of business then they are doing at present," Harry W. Von Willer, vice-president, traffic, of the Erie told the Ohio Valley Transportation Advisory Board in Cincinnati on December 4. "The job," he continued, "is to get enough business to keep them operating at their highest point of efficiency. It can only be done by keeping prices competitive.

"To accomplish this, railroad management must have the freedom to exercise its own judgement based on knowledge and experience as to what prices will produce the greatest volume of traffic. If we can restore true competition to movement of goods, you will find that the customer—not the government—will control the nation's transportation."

Mr. Von Willer thereupon outlined an eight-point program aimed at solution of the railroads' financial problem. (*Railway Age*, December 1, page 13), and concluded by telling the board members that "we realize both the difficulties that will confront us in achieving these objectives and the responsibilities that will come with them."

Opposition to Higher Rates "Unrealistic," Mather Says

Capital expenditures of $95 million are required annually by the Canadian Pacific to keep its facilities in shape to handle its share of Canadian production, W. A. Mather, president of the CPR, told the Toronto Railway Club at its annual dinner.

In 1949 the company had estimated this amount at $80 million, but Mr. Mather revealed that it had recently been revised upward because of the country's accelerated economic expansion, as well as price increases.

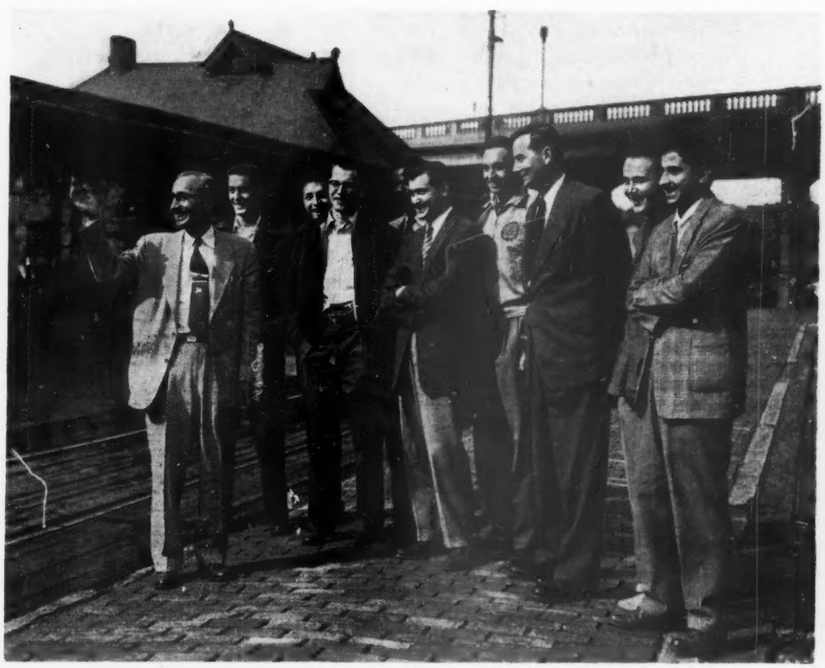
Mr. Mather spoke at length on the increase in operating costs and need for higher freight rates. "The passionate oratory of those whose role it is to oppose any and all increases in freight rates," he said, "contributes to development of a negative public sentiment respecting legitimate and necessary requests by the railways . . . Yet to expect freight rates to remain stationary while operating costs, in spite of large sums spent on modernizing equipment and facilities, continue to mount, is quite unrealistic."

The effective increase in freight rates has been only 46.4 per cent, including the increase granted early this year, he said.

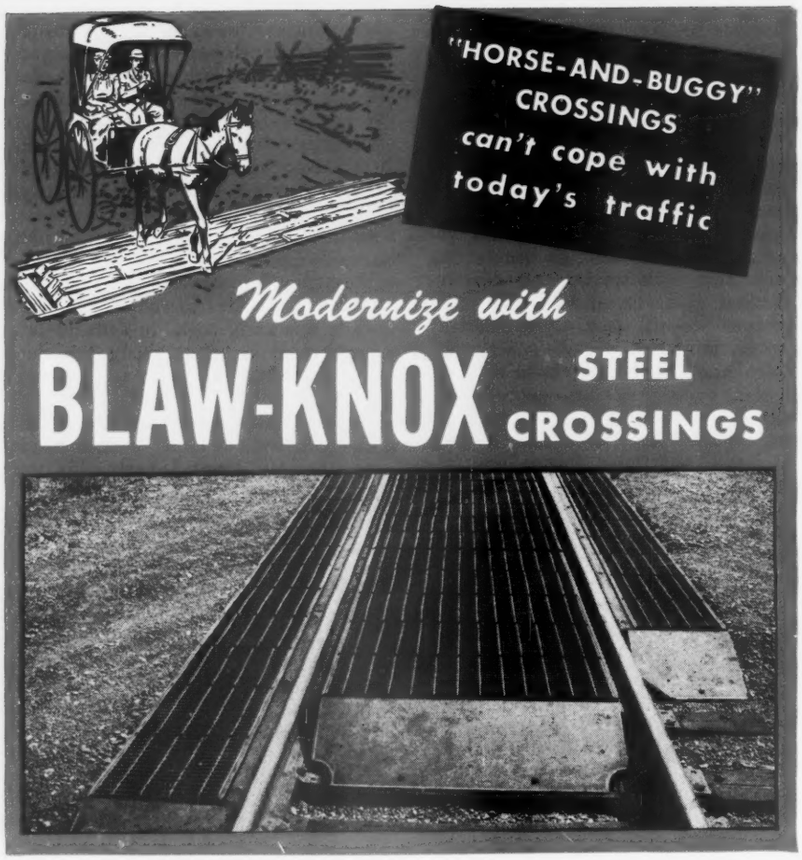
I.C.C. to Distinguish Steel Sheets from Steel Plates

The Interstate Commerce Commission has instituted an investigation "with a view to making such orders as may be necessary" to require that definitions of iron or steel sheets and iron or steel plates be included in tariffs of eastern railroads. The proceeding is docketed as No. 31155, and the order of investigation, dated December 1, was made public December 9.

It said tariffs of eastern roads generally do not contain any definition of sheets or plates. Tariffs publish transit



TRANSPORTATION STUDENTS from the University of Michigan's College of Engineering get some first-hand views of various railroad activities as part of their course; here Joseph W. Hachey, New York Central ticket agent at Ann Arbor (extreme left), explains passenger station operation. Course instructor is John C. Kohl, associate professor of civil engineering (third from right). Of the eight students, five are from this country, one from Nigeria, one from Turkey and one from Iraq.



Where other crossings soon deteriorate from the battering of heavy trucks and automobiles, Blaw-Knox Steel Crossings show little sign of wear. Made from electroforged steel grating, they last as long as the rails themselves.

The open mesh construction admits sun and air . . . prevents rotting of ties and foundation supports. Panels are easily removed and replaced when tamping is required.

It costs practically nothing to keep your crossings in top condition when you install Blaw-Knox Steel Crossings. And good crossings foster public goodwill.

Write for Bulletin 2395 describing railroad applications of Blaw-Knox Grating.

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Canada—Central Bridge Company, Trenton, Ontario.

Railway Equipment and Grating Department

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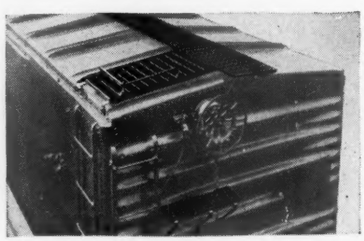


BLAW-KNOX RUNNING BOARDS AND STEPS—are constructed from electroforged steel grating—as are Blaw-Knox platforms, diesel ramps, battery boxes, battery shelves and fan funnel grills. Write for Bulletin 2395.

BLAW-KNOX *Electroforged*® STEEL CROSSINGS, RUNNING BOARDS, STEPS

METZMAN ELECTED CAR INSTITUTE CHAIRMAN

Gustav Metzman, whose retirement as chairman of the New York Central becomes effective on January 1 (see Railway Officers news columns in this issue), has been elected chairman of the board of the American Railway Car Institute, effective on the same date. The institute, a trade association composed of major builders of railroad freight and passenger cars, includes among its members the Pullman-Standard Car Manufacturing Company, the American Car & Foundry Co., the Greenville Steel Car Company, the St. Louis Car Company, the Magor Car Corporation, the General American Transportation Corporation, the Pressed Steel Car Company and the Youngstown Steel Car Corporation.

"In accepting the chairmanship . . . I am moving into another important division of the field to which I have devoted my life, railroading and the American transportation system," Mr. Metzman said. "During latter years as my administrative responsibilities increased, the conviction grew on me that the independent car builders, as the manufacturing allies of the railroad industry, must continue to be strong and healthy. And, further, that the car builders and other railroad suppliers, if properly encouraged, can be an effective force in helping railroads achieve their legitimate public objectives.

"Because of their muturality of interest and interdependence," Mr. Metzman concluded, "it is my hope that railroads and car builders may be brought into a stronger, more cooperative relationship that will benefit the public through even stronger rail transportation. To that end I expect to devote much of my time and effort."

arrangements applicable on plates but not on sheets; but rates on sheets are generally lower.

"The maintenance of such differences . . . without clearly indicating by appropriate tariff publication the class and kind of materials upon which the different rates and transit arrangements apply results in violations of the Interstate Commerce Act," the order also said.

I.C.C. Revises Rules For Splitting Expenses

The Interstate Commerce Commission has served upon Class I railroads an order designed to make effective on January 1, 1953, a revised set of rules governing the separation of operating expenses, taxes, equipment rents and joint facility rents between freight service and passenger service.

(*Continued on page* 50)

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1952

Name of Road	Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1952	Total (inc. misc.) 1951	Operating Expenses: Maint. Way and Structures: Total 1952	Total 1951	Deprec. and Retirements	Maint. Equipment: Total 1952	Total 1951	Deprec. and Retirements	Traffic	Transportation	Total 1952	Total 1951	Operating ratio 1952	Operating ratio 1951	Net from railway operation	Railway tax accruals	Net railway operating income 1952	Net railway operating income 1951
Akron, Canton & Youngstown	Oct. 171	522	....	536	533	84	78	7	55	52	15	38	145	354	334	66.0	62.7	182	57	101	63
	10 mos. 171	4,560	....	4,678	4,798	774	704	66	544	482	156	365	1,363	3,362	3,227	71.9	67.3	1,316	469	659	561
Atchison, Topeka & Santa Fe System	Oct. 13,072	47,165	3,996	55,800	52,545	7,930	8,305	766	9,333	8,736	1,745	1,213	16,081	36,630	36,698	65.7	69.8	19,170	12,881	6,156	19,503
	10 mos. 13,072	404,160	48,614	497,829	463,832	72,230	77,594	7,140	90,174	89,570	16,854	11,425	155,132	349,947	354,451	70.3	76.4	147,883	87,654	58,188	56,963
Atlanta & St. Andrews Bay	Oct. 82	306	1	316	320	34	27	3	21	20	4	8	62	139	135	44.0	42.3	177	93	56	73
	10 mos. 82	2,928	16	3,022	2,994	365	331	27	232	202	42	90	621	1,467	1,374	48.5	45.9	1,555	803	479	501
Atlanta & West Point	Oct. 93	317	39	407	406	54	45	5	61	55	11	15	177	332	304	81.5	74.8	75	41	15	36
	10 mos. 93	2,836	474	3,803	3,742	473	469	53	604	563	113	150	1,641	3,110	3,068	81.6	82.0	692	392	152	130
Western of Alabama	Oct. 133	349	37	431	402	54	57	6	67	56	15	16	151	311	295	72.2	73.4	120	58	51	40
	10 mos. 133	3,041	456	3,909	3,792	496	526	68	681	625	139	156	1,432	2,993	2,949	76.6	77.8	916	504	404	292
Atlantic & Danville	Oct. 205	171	....	173	193	34	54	2	16	18	5	12	56	130	154	74.7	79.8	44	10	10	10
	10 mos. 205	1,577	....	1,601	1,508	332	321	19	139	108	48	115	526	1,229	1,187	76.8	78.7	372	99	75	68
Atlantic Coast Line	Oct. 5,471	10,579	1,156	12,725	12,693	3,080	1,739	227	3,559	2,867	532	356	4,649	12,248	10,094	96.3	79.5	477	Cr 300	705	849
	10 mos. 5,472	112,502	18,043	140,795	130,117	25,797	25,019	1,362	30,005	25,761	5,298	3,593	48,558	114,089	108,886	81.0	83.7	26,706	14,650	9,602	6,188
Charleston & Western Carolina	Oct. 343	482	2	500	511	92	134	7	120	121	42	19	164	408	450	81.6	88.1	92	40	64	27
	10 mos. 343	5,193	27	5,394	5,366	1,320	1,377	45	1,137	849	402	178	1,725	4,491	4,193	83.3	78.1	903	405	501	530
Baltimore & Ohio	Oct. 6,187	35,515	1,756	40,104	40,125	5,225	5,875	380	7,931	8,251	991	889	14,968	30,574	31,782	76.2	79.3	9,530	3,796	4,541	3,970
	10 mos. 6,187	321,065	20,262	366,194	374,512	47,759	50,042	4,049	75,308	82,475	9,762	8,657	144,384	291,245	305,008	79.5	81.4	74,949	27,941	37,025	31,324
Staten Island Rapid Transit	Oct. 29	264	56	324	339	67	48	14	28	39	2	2	162	293	285	90.3	84.0	31	37	—30	—6
	10 mos. 29	2,551	534	3,118	2,962	576	487	111	312	371	19	15	1,521	2,747	2,668	88.1	90.1	371	364	—239	—229
Bangor & Aroostook	Oct. 602	712	33	784	777	222	205	16	224	165	91	18	241	780	690	99.5	88.8	4	Cr 1	81	59
	10 mos. 602	9,800	370	10,614	8,806	2,442	1,921	167	2,298	1,766	728	192	2,973	8,515	6,924	80.2	78.6	2,099	1,162	1,292	933
Bessemer & Lake Erie	Oct. 212	3,038	1	3,059	3,027	242	181	34	708	1,196	128	22	544	1,629	2,068	53.2	68.3	1,431	875	825	—91
	10 mos. 212	21,524	7	21,739	25,299	2,064	1,991	212	5,922	7,786	1,093	199	4,586	13,765	16,167	63.3	63.9	7,974	5,107	4,948	4,205
Boston & Maine	Oct. 1,700	6,221	968	8,081	7,846	1,399	1,309	201	1,228	1,135	181	117	3,134	6,196	6,112	76.7	77.9	1,885	908	632	570
	10 mos. 1,701	55,065	10,077	73,698	73,017	13,565	12,843	1,884	11,472	11,562	1,749	1,145	31,195	60,650	60,166	82.3	82.4	13,047	6,355	3,529	3,197
Cambria & Indiana	Oct. 35	117	....	117	160	27	28	1	96	76	22	....	19	149	139	127.2	87.0	—32	—25	143	41
	10 mos. 35	1,285	....	1,285	1,347	196	144	16	819	824	200	1	218	1,310	1,302	101.9	96.7	—25	577	627	535
Canadian Pacific Lines in Maine	Oct. 234	343	48	426	383	103	128	5	99	78	13	8	217	441	386	103.7	100.7	—16	29	—79	—70
	10 mos. 234	4,672	527	5,516	5,189	1,196	1,082	51	992	845	96	79	2,258	4,665	4,095	84.6	78.9	851	286	—34	286
Canadian Pacific Lines in Vermont	Oct. 90	202	21	249	224	76	50	4	32	31	..	7	123	246	225	98.8	100.4	3	14	—69	—68
	10 mos. 90	1,897	155	2,257	2,253	693	532	38	302	317	2	66	1,201	2,345	2,179	103.9	96.7	—88	130	—758	—601
Central of Georgia	Oct. 1,786	3,283	148	3,771	3,622	585	559	35	626	554	119	133	1,422	2,963	2,944	78.6	81.3	807	224	537	401
	10 mos. 1,786	30,582	2,145	36,002	35,374	5,901	6,177	438	6,081	5,855	1,069	1,309	14,955	30,214	30,783	83.9	87.0	5,787	2,667	2,660	1,521
Central of New Jersey	Oct. 411	3,235	460	4,006	4,016	579	645	86	616	653	74	57	1,821	3,256	3,383	81.3	84.2	750	390	—49	—129
	10 mos. 411	28,866	4,818	36,697	36,379	5,089	5,074	743	6,082	6,209	771	580	17,972	31,405	32,077	85.6	88.2	5,291	4,011	—2,538	—2,244
Central of Pennsylvania	Oct. 207	1,782	4	1,847	1,878	332	238	140	502	452	76	24	465	1,365	1,297	73.9	69.1	482	85	694	770
	10 mos. 207	16,149	51	16,723	16,222	2,084	1,757	270	3,820	3,864	755	253	4,707	11,283	11,387	67.5	70.2	5,440	1,491	6,684	6,755
Central Vermont	Oct. 422	751	52	874	970	157	156	16	110	128	12	16	428	755	745	86.4	76.8	119	40	31	88
	10 mos. 422	7,826	664	9,164	9,599	1,750	1,802	166	1,450	1,551	124	156	4,126	7,912	7,892	86.3	82.2	1,252	438	244	645
Chesapeake & Ohio	Oct. 5,116	24,913	651	26,939	35,773	4,149	4,421	262	5,440	6,472	1,406	674	8,862	20,403	23,403	75.7	65.4	6,536	2,791	3,983	5,620
	10 mos. 5,116	273,096	7,325	294,648	306,489	41,153	40,221	3,452	59,496	57,796	14,174	6,307	93,085	212,691	215,912	72.2	70.4	81,957	40,851	44,588	41,718
Chicago & Eastern Illinois	Oct. 868	2,755	260	3,340	3,168	411	430	29	565	440	123	119	1,133	2,390	2,244	71.6	70.8	950	389	431	435
	10 mos. 868	23,245	2,672	28,980	27,850	3,710	3,878	289	4,625	3,971	1,177	1,176	10,590	21,808	20,968	75.3	75.3	7,172	2,560	3,536	3,140
Chicago & Illinois Midland	Oct. 130	522	....	546	899	60	119	7	119	166	20	28	196	444	617	81.4	68.7	102	53	19	115
	10 mos. 130	5,303	2	5,486	7,783	595	1,075	73	1,336	1,586	207	283	1,921	4,544	5,543	82.8	71.2	941	507	168	755
Chicago & North Western	Oct. 7,897	17,065	1,687	20,814	19,134	2,751	2,963	357	2,981	2,774	754	372	8,418	15,387	15,265	73.9	79.8	5,427	1,086	3,378	2,359
	10 mos. 7,906	132,837	18,876	171,037	169,118	27,220	27,276	3,436	31,333	31,428	7,447	3,510	78,600	149,146	149,535	87.2	88.4	21,891	10,659	5,801	4,768
Chicago, Burlington & Quincy	Oct. 8,866	23,228	1,540	27,162	24,252	4,550	4,299	422	3,304	3,255	718	476	9,008	18,157	16,843	66.8	69.5	9,005	4,899	3,574	2,937
	10 mos. 8,815	182,719	16,642	221,377	218,864	34,863	35,215	4,428	34,324	32,572	6,986	4,681	78,352	160,372	157,743	72.4	72.1	61,005	33,381	23,457	23,551
Chicago Great Western	Oct. 1,474	3,275	8	3,502	3,063	601	529	38	450	384	119	109	1,100	2,405	2,079	68.7	67.9	1,096	377	389	339
	10 mos. 1,474	27,641	164	29,686	28,319	4,985	4,959	420	3,950	4,211	1,188	1,054	9,665	20,799	20,470	70.1	72.3	8,887	3,127	3,045	2,493
Chicago, Indianapolis & Louisville	Oct. 541	1,756	64	1,942	2,102	255	314	20	272	257	66	88	641	1,355	1,421	69.8	67.6	587	240	214	275
	10 mos. 541	16,308	666	18,132	17,757	3,145	3,067	188	2,739	2,785	639	880	6,255	13,980	14,023	77.1	79.0	4,152	1,651	1,440	1,280
Chicago, Milw., St. Paul & Pacific	Oct. 10,668	21,805	1,289	25,712	26,227	3,973	2,828	445	4,657	4,297	864	475	9,604	19,740	18,344	76.8	69.9	5,972	2,938	2,365	3,348
	10 mos. 10,671	185,704	15,752	224,515	220,358	34,680	31,887	3,899	45,370	43,524	8,823	4,750	91,582	186,832	184,736	83.2	83.8	37,683	19,289	12,645	10,741
Chicago, Rock Island & Pacific	Oct. 7,916	16,186	1,452	19,229	17,801	2,678	2,755	264	3,172	2,479	529	480	6,360	13,486	12,741	70.1	71.6	5,743	2,657	2,590	2,077
	10 mos. 7,916	144,962	16,950	177,474	163,462	23,386	24,929	2,456	28,830	25,526	5,033	4,863	63,521	128,626	127,226	72.5	77.8	48,848	21,704	20,489	12,298
Chic., St. Paul, Minn. & Omaha	Oct. 1,617	2,834	173	3,280	3,101	508	508	54	438	402	90	66	1,472	2,616	2,617	79.8	84.4	664	187	274	132
	10 mos. 1,617	23,918	1,876	28,367	27,828	4,526	4,549	460	4,201	4,233	882	650	14,135	24,799	25,552	87.4	91.8	3,568	1,816	—413	—1,389
Clinchfield	Oct. 317	1,918	1	1,928	2,020	357	304	20	358	371	81	44	395	1,192	1,216	61.8	60.2	736	228	694	716
	10 mos. 317	19,745	13	19,861	19,521	3,079	2,674	187	3,375	3,209	809	420	4,277	11,512	11,008	58.0	56.4	8,349	2,181	7,532	6,002

REVENUES AND EXPENSES OF CLASS I RAILWAYS

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1952

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1952	Total (inc. misc.) 1951	Operating Expenses: Maint. Way and Structures: Total 1952	Total 1951	Deprec. and Retirements	Maint. Equipment: Total 1952	Total 1951	Deprec. and Retirements	Traffic	Transportation	Total 1952	Total 1951	Operating ratio 1952	Operating ratio 1951	Net from railway operation	Railway tax accruals	Net railway operating income 1952	Net railway operating income 1951
Colorado & Southern	Oct.	734	1,538	73	1,754	1,458	350	187	28	170	163	31	30	554	1,165	982	66.4	67.4	589	254	290	146
	10 mos.	736	11,173	828	13,305	13,184	1,709	1,709	195	1,967	1,949	336	287	4,758	9,284	9,493	69.8	72.0	4,020	2,138	1,730	887
Ft. Worth & Denver	Oct.	1,038	1,812	146	2,122	2,211	284	258	32	237	240	28	57	700	1,372	1,388	64.7	62.8	750	301	332	338
	10 mos.	1,038	16,167	1,634	19,413	18,052	2,887	2,625	320	2,439	2,403	304	551	7,002	13,848	13,414	71.3	74.3	5,565	1,972	2,483	1,735
Colorado & Wyoming	Oct.	40	186	....	312	260	21	28	2	48	34	11	1	113	196	193	62.7	74.3	116	63	51	22
	10 mos.	40	1,318	....	2,332	2,741	199	512	19	342	283	102	12	903	1,563	2,102	67.0	76.6	769	376	284	235
Columbus & Greenville	Oct.	168	194	2	207	204	32	37	4	28	23	6	4	58	139	140	67.5	68.6	67	41	28	28
	10 mos.	168	1,503	2	1,572	1,691	295	434	36	268	297	59	40	497	1,280	1,466	81.5	86.7	291	262	105	68
Delaware & Hudson	Oct.	793	5,310	158	5,645	5,607	845	712	136	835	1,140	116	109	1,662	3,659	4,014	64.8	71.6	1,986	1,034	1,024	699
	10 mos.	793	44,835	1,749	48,238	49,383	7,179	6,746	885	9,372	10,171	1,417	848	17,672	37,122	38,237	77.0	77.4	11,116	5,734	5,820	5,168
Delaware, Lackawanna & Western	Oct.	962	7,067	785	8,699	8,115	895	837	179	1,486	1,421	300	173	3,407	6,239	6,053	71.7	74.6	2,460	1,314	1,163	1,091
	10 mos.	963	61,635	8,183	77,399	73,846	8,558	8,274	1,389	14,235	13,733	2,964	1,656	32,968	60,125	59,760	77.7	80.9	17,274	9,252	8,434	6,268
Denver & Rio Grande Western	Oct.	2,333	7,639	266	8,182	7,828	808	618	99	1,273	1,100	251	185	2,363	4,932	4,587	60.3	58.6	3,250	1,767	1,485	1,410
	10 mos.	2,333	61,365	2,957	66,796	63,482	8,696	8,153	917	11,377	10,779	2,366	1,739	21,631	46,364	43,737	69.4	68.9	20,432	11,212	8,898	9,235
Detroit & Mackinac	Oct.	232	206	....	210	278	43	75	3	22	24	9	5	43	125	157	59.5	56.3	85	44	41	16
	10 mos.	232	1,663	2	1,704	2,166	430	510	28	208	211	88	43	384	1,172	1,233	68.8	56.9	532	299	257	305
Detroit & Toledo Shore Line	Oct.	50	682	....	701	634	79	71	4	55	59	16	15	197	359	364	51.3	57.4	341	127	111	87
	10 mos.	50	6,173	....	6,307	6,302	770	721	33	593	588	177	142	1,902	3,537	3,641	56.1	57.8	2,770	1,033	854	703
Detroit, Toledo & Ironton	Oct.	464	1,623	....	1,698	1,605	207	214	21	265	285	71	29	410	959	993	56.5	61.9	739	375	338	240
	10 mos.	464	13,961	4	14,674	15,690	2,001	2,106	243	3,171	2,534	678	279	3,942	9,932	9,651	67.7	61.5	4,742	2,480	2,061	2,539
Duluth, Missabe & Iron Range	Oct.	569	6,376	1	7,463	6,918	637	599	52	742	745	97	11	2,547	4,134	3,641	55.4	52.6	3,329	1,849	1,373	16
	10 mos.	568	35,851	10	41,825	51,466	6,321	6,142	649	6,493	7,110	903	93	14,424	28,741	30,909	68.7	60.1	13,084	7,887	5,035	5,430
Duluth, South Shore & Atlantic	Oct.	539	772	6	821	698	142	116	10	145	138	21	23	290	622	538	75.7	77.1	200	32	97	110
	10 mos.	539	6,271	72	6,693	6,794	1,350	1,257	88	1,390	1,264	202	236	2,465	5,632	5,585	84.1	82.2	1,062	296	413	548
Duluth, Winnipeg & Pacific	Oct.	175	372	1	381	415	97	102	4	79	91	2	5	191	378	405	99.2	97.6	3	27	—66	—75
	10 mos.	175	4,859	11	4,935	4,232	865	770	42	783	722	21	52	2,166	3,936	3,437	79.7	81.2	999	373	19	—15
Elgin, Joliet & Eastern	Oct.	236	4,315	....	5,369	5,032	276	483	19	735	811	102	33	1,709	2,926	3,169	54.5	63.0	2,443	1,083	751	—4
	10 mos.	236	31,355	....	39,393	45,853	3,280	4,323	294	6,639	6,605	1,000	333	14,475	26,241	29,019	66.6	63.3	13,152	5,201	2,912	3,291
Erie	Oct.	2,242	15,209	584	17,251	16,513	2,062	2,047	317	2,171	2,231	487	361	6,625	11,862	11,611	68.8	70.3	5,390	2,389	2,360	2,238
	10 mos.	2,242	127,829	6,287	146,257	148,692	20,245	19,908	2,454	22,220	22,413	4,707	3,519	59,856	112,210	113,468	76.7	76.3	34,017	14,806	14,712	15,352
Florida East Coast	Oct.	571	1,575	281	2,021	1,988	361	383	42	524	409	74	75	833	1,946	1,796	96.3	90.3	75	172	—192	—55
	10 mos.	571	19,326	6,234	28,185	24,355	3,578	3,448	413	5,020	4,378	756	741	10,325	21,489	19,750	76.2	81.1	6,697	1,707	3,451	1,646
Georgia Railroad	Oct.	323	750	22	843	886	141	131	8	129	116	27	34	365	704	646	83.6	72.9	138	38	112	208
	10 mos.	323	7,118	350	8,121	8,066	1,192	1,188	86	1,285	1,220	266	334	3,395	6,561	6,273	80.8	77.8	1,560	388	1,359	1,505
Georgia & Florida	Oct.	360	318	....	322	250	105	80	4	35	33	7	19	93	268	225	83.1	89.9	54	20	7	—7
	10 mos.	360	3,113	....	3,156	2,880	913	803	35	366	331	74	194	951	2,577	2,343	81.7	81.4	579	191	130	157
Grand Trunk Western	Oct.	952	4,225	228	4,829	4,859	849	828	46	891	401	90	67	2,162	4,139	3,674	85.7	75.6	690	333	20	—368
	10 mos.	952	40,421	2,209	46,070	47,638	7,616	7,515	498	8,418	8,288	907	728	20,946	39,432	39,123	85.6	82.1	6,638	3,071	695	2,349
Canadian Natl. Lines in New Engl.	Oct.	172	125	4	163	200	65	83	11	56	57	....	3	124	266	303	163.2	151.7	—103	24	—167	—223
	10 mos.	172	1,640	90	2,125	2,314	735	623	92	691	493	2	27	1,362	3,009	2,668	141.6	115.3	—884	235	—1,542	—1,064
Great Northern	Oct.	8,314	25,619	955	28,777	26,631	4,097	3,720	431	3,626	3,468	683	404	8,121	17,061	16,191	59.3	60.8	11,716	6,306	4,848	4,625
	10 mos.	8,314	189,408	11,907	217,754	209,191	37,742	36,636	3,343	37,057	34,310	6,477	3,897	72,122	158,971	154,717	73.0	74.0	58,784	31,893	22,690	19,838
Green Bay & Western	Oct.	224	330	....	340	368	74	113	4	44	45	8	20	91	243	279	71.3	76.0	98	50	31	35
	10 mos.	224	2,936	....	3,022	3,412	709	981	50	390	426	136	198	857	2,306	2,618	76.3	76.7	716	375	162	338
Gulf, Mobile & Ohio	Oct.	2,766	7,872	375	8,802	8,273	1,247	1,368	66	1,440	1,276	244	289	2,363	5,744	5,530	65.3	66.8	3,058	1,401	1,191	1,064
	10 mos.	2,799	67,593	4,062	76,589	72,351	11,940	11,992	883	13,365	13,385	2,418	2,614	21,796	53,215	53,088	69.5	73.4	23,374	10,929	9,000	7,390
Illinois Central	Oct.	6,539	24,745	1,805	29,490	27,365	4,229	4,240	347	4,707	4,306	746	503	9,615	20,072	19,429	68.1	71.0	9,418	7,814	1,337	3,096
	10 mos.	6,539	207,122	18,846	250,961	241,553	39,304	39,773	3,578	41,782	42,017	7,370	4,915	89,475	185,663	186,666	74.0	77.3	65,298	36,200	24,970	23,530
Illinois Terminal	Oct.	447	1,152	82	1,371	1,284	166	217	26	187	151	36	43	475	927	913	67.6	71.1	444	212	154	122
	10 mos.	451	8,890	779	10,280	10,607	1,543	1,562	265	1,610	1,540	345	407	4,309	8,419	8,238	77.4	77.7	2,461	1,236	868	866
Kansas City Southern	Oct.	891	4,024	122	4,513	3,670	410	370	35	473	442	91	88	1,183	2,282	2,088	50.6	56.9	2,231	1,131	787	562
	10 mos.	891	34,505	1,455	39,324	36,509	4,194	3,736	330	4,754	4,472	870	863	11,191	22,247	21,099	56.6	57.8	17,078	8,024	6,700	6,162
Kansas, Oklahoma & Gulf	Oct.	327	680	1	686	585	123	123	7	31	29	9	27	125	331	329	48.3	56.2	355	129	182	100
	10 mos.	327	6,040	6	6,098	5,500	1,045	743	62	375	341	88	262	1,260	3,183	2,763	52.2	50.2	2,915	1,452	1,089	1,112
Lake Superior & Ishpeming	Oct.	156	488	....	600	504	54	120	9	55	50	12	2	125	248	309	41.3	61.3	352	198	167	79
	10 mos.	156	2,847	....	3,468	4,023	525	581	93	554	493	111	20	885	2,104	2,296	60.6	57.1	1,364	842	610	725
Lehigh & Hudson River	Oct.	96	312	....	313	301	42	48	3	28	30	9	14	84	179	188	57.1	62.4	134	55	56	79
	10 mos.	96	2,727	....	2,735	2,749	435	422	24	293	258	86	129	838	1,796	1,711	65.7	62.3	939	382	370	430
Lehigh & New England	Oct.	184	1,063	....	1,075	938	104	77	6	167	113	38	14	235	555	452	51.6	48.2	521	283	261	141
	10 mos.	184	7,455	....	7,523	7,503	807	975	63	1,315	1,133	374	119	1,947	4,539	4,476	60.3	59.7	2,984	1,785	1,722	1,540
Lehigh Valley	Oct.	1,218	6,977	306	7,656	7,383	967	935	120	1,069	1,194	210	141	2,574	5,006	5,071	65.4	68.7	2,650	1,213	1,368	1,394
	10 mos.	1,219	58,787	3,217	65,485	65,258	8,163	8,702	858	10,562	11,784	1,924	1,390	24,910	47,526	49,963	72.6	76.6	17,959	7,933	9,601	8,399
Long Island	Oct.	365	1,341	3,090	4,673	4,834	648	494	87	823	777	120	13	2,228	3,875	3,700	82.9	76.5	798	491	27	639
	10 mos.	365	11,429	30,666	44,447	45,043	6,156	5,969	861	7,877	8,358	1,188	154	22,985	38,838	39,632	87.4	88.0	5,609	4,895	—1,693	—1,607

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1952

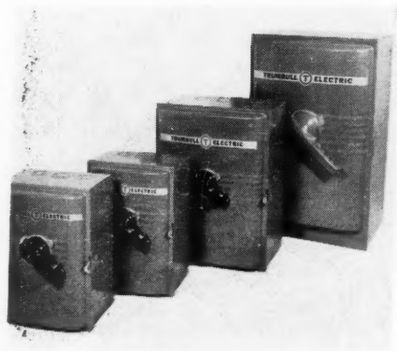
Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1952	Total (inc. misc.) 1951	Operating Expenses: Maint. Way and Structures: Total 1952	Total 1951	Deprec. and Retirements	Maint. Equipment: Total 1952	Total 1951	Deprec. and Retirements	Traffic	Transportation	Total 1952	Total 1951	Operating ratio 1952	Operating ratio 1951	Net from railway operation	Railway tax accruals	Net railway operating income 1952	Net railway operating income 1951
Louisiana & Arkansas	Oct.	756	2,174	51	2,314	2,034	446	224	19	306	315	87	74	609	1,510	1,258	65.3	61.8	804	296	405	363
	10 mos.	756	20,470	623	21,913	19,787	3,692	3,668	202	2,718	2,436	750	707	5,815	13,662	13,185	62.3	66.6	8,251	3,583	3,880	2,375
Louisville & Nashville	Oct.	4,738	18,054	919	20,310	21,514	2,901	2,762	234	4,072	4,182	717	339	6,755	14,737	14,925	72.6	69.4	5,574	3,292	3,130	3,193
	10 mos.	4,762	162,757	11,406	187,442	185,720	27,349	26,455	2,279	40,515	39,515	6,744	3,353	66,943	144,700	145,187	77.2	78.2	42,743	27,406	21,808	18,222
Maine Central	Oct.	945	1,902	103	2,177	2,299	531	485	52	386	402	68	17	748	1,767	1,732	81.2	75.3	410	163	220	214
	10 mos.	945	19,432	1,318	22,418	21,798	4,517	4,203	358	3,822	3,779	680	205	7,888	17,220	16,410	76.8	75.3	5,198	2,612	2,188	2,164
Midland Valley	Oct.	334	194	....	199	214	50	49	17	16	17	2	5	65	145	137	72.7	64.2	54	15	26	58
	10 mos.	334	1,731	....	1,761	1,740	488	483	72	194	173	24	49	628	1,426	1,362	81.0	78.2	335	152	90	95
Minneapolis & St. Louis	Oct.	1,402	2,236	4	2,362	2,358	429	290	51	279	265	78	127	713	1,647	1,442	69.8	61.1	714	384	329	314
	10 mos.	1,404	18,090	73	18,846	18,233	3,300	3,315	296	2,809	2,645	741	1,195	6,081	14,447	14,082	76.7	77.2	4,398	2,304	1,711	1,249
Minn., St. Paul & Sault Ste. Marie	Oct.	3,223	3,786	79	4,104	4,751	933	771	52	593	618	103	78	1,436	3,165	3,128	77.1	65.8	940	486	474	667
	10 mos.	3,224	33,251	947	36,237	34,940	7,742	7,061	474	6,587	6,426	941	757	13,690	30,028	29,148	82.9	83.4	6,209	3,595	2,248	2,436
Mississippi Central	Oct.	148	233	....	237	246	54	51	2	33	37	3	13	65	175	175	73.9	71.1	62	33	17	25
	10 mos.	148	2,211	—1	2,247	2,178	498	433	22	297	287	32	131	652	1,676	1,521	74.6	69.8	572	289	179	229
Missouri Illinois	Oct.	172	531	....	536	544	106	68	4	74	65	21	8	149	348	298	65.0	54.7	188	109	86	85
	10 mos.	172	4,448	2	4,489	4,469	792	669	38	710	650	204	85	1,216	2,902	2,675	64.6	59.9	1,587	929	736	711
Missouri-Kansas-Texas Lines	Oct.	3,242	6,877	331	7,864	7,345	1,254	964	112	1,062	989	224	263	2,534	5,450	5,065	69.3	69.0	2,414	947	1,141	854
	10 mos.	3,242	60,886	3,630	70,426	64,196	10,185	9,759	1,237	10,168	9,414	2,233	2,533	24,549	50,607	49,550	71.9	77.2	19,819	8,468	8,358	5,197
Missouri Pacific	Oct.	6,950	20,633	951	23,795	22,670	4,012	3,934	342	4,202	4,069	721	478	8,070	17,432	17,196	73.3	75.9	6,362	2,787	2,977	3,353
	10 mos.	6,950	175,000	10,390	205,359	196,116	34,385	34,925	2,815	38,729	38,225	7,059	4,550	73,607	157,705	159,135	76.8	81.1	47,654	18,428	23,651	18,899
International-Great Northern	Oct.	1,104	3,037	160	3,483	3,396	658	640	36	565	546	104	60	1,177	2,593	2,645	74.4	77.9	891	314	438	413
	10 mos.	1,104	26,896	1,944	31,637	31,787	6,488	6,479	348	5,642	5,410	1,009	582	12,101	26,134	26,324	82.6	82.8	5,503	1,348	2,836	2,564
Gulf Coast Lines	Oct.	1,723	3,503	81	3,819	3,852	819	708	28	558	516	95	90	1,169	2,781	2,728	72.8	70.8	1,039	343	527	489
	10 mos.	1,724	33,580	928	36,796	36,393	7,606	7,305	420	5,525	5,491	945	888	11,789	27,250	27,274	74.0	74.9	9,546	3,353	4,421	3,743
Monongahela	Oct.	178	408	....	414	834	76	102	10	61	91	8	1	203	346	519	83.5	62.2	69	35	—81	92
	10 mos.	178	6,325	....	6,365	7,485	884	913	112	785	883	76	11	2,404	4,170	4,496	65.5	60.1	2,195	376	418	851
Montour	Oct.	51	187	....	187	277	25	23	3	80	101	17	1	72	187	236	100.0	85.2	....	39	43	42
	10 mos.	51	1,887	....	1,890	2,223	227	294	25	725	889	162	9	793	1,848	2,175	97.7	97.8	43	400	395	287
Nashville, Chatt. & St. Louis	Oct.	1,032	3,111	127	3,749	3,675	639	641	43	441	503	93	127	1,174	2,513	2,539	67.0	69.1	1,236	591	642	425
	10 mos.	1,032	28,902	1,560	34,091	31,589	5,862	5,727	474	4,706	4,714	1,151	1,148	11,480	24,404	23,978	71.6	75.9	9,687	4,854	4,881	2,959
New York Central	Oct.	10,718	56,208	9,567	75,346	75,727	12,082	11,306	944	14,105	14,509	2,304	1,075	29,976	60,457	60,594	80.2	80.0	14,889	5,265	8,582	7,802
	10 mos.	10,713	477,302	102,298	663,121	667,043	96,093	91,300	9,293	135,636	137,062	22,645	10,703	290,825	565,196	577,017	85.2	86.5	97,924	51,799	36,735	24,557
Pittsburgh & Lake Erie	Oct.	221	4,224	73	4,529	4,339	659	563	135	1,051	1,612	249	76	1,325	3,347	3,921	73.9	90.4	1,182	1,059	1,092	480
	10 mos.	221	34,284	744	36,876	41,266	4,763	5,122	577	10,426	13,239	2,420	724	13,038	31,207	35,658	84.6	86.4	5,669	5,661	8,050	5,957
New York, Chicago & St. Louis	Oct.	2,184	15,480	154	16,258	15,098	1,500	1,494	135	2,218	2,284	334	318	5,057	9,558	9,370	58.8	62.1	6,700	3,419	3,013	2,573
	10 mos.	2,185	127,134	1,745	133,563	133,600	15,959	15,171	1,398	20,982	21,964	3,295	3,057	46,109	90,529	91,424	67.8	68.4	43,034	21,979	18,718	18,883
New York, New Haven & Hartford	Oct.	1,793	8,940	3,972	14,553	13,616	2,368	2,062	263	2,117	2,203	376	184	5,917	11,337	10,956	77.9	80.5	3,215	1,066	1,184	787
	10 mos.	1,793	76,772	42,734	134,527	129,777	20,577	20,008	2,726	21,077	21,321	3,735	1,931	57,149	107,914	106,027	80.2	81.7	26,613	10,322	7,838	5,285
New York Connecting	Oct.	21	299	....	334	271	119	260	25	21	35	..	....	78	221	492	66.1	181.4	113	80	28	—496
	10 mos.	21	2,952	....	3,228	2,701	968	1,142	251	260	184	....	....	810	2,067	2,142	64.0	79.3	1,161	819	441	—97
New York, Ontario & Western	Oct.	541	651	....	668	688	125	120	19	88	81	23	25	268	538	532	80.6	77.3	130	37	20	60
	10 mos.	541	5,646	62	5,908	6,137	1,238	1,176	227	831	867	228	254	2,641	5,274	5,468	89.3	89.1	634	368	—377	—369
New York, Susquehanna & Western	Oct.	120	489	41	561	481	58	54	5	66	68	11	12	219	379	354	67.6	73.6	182	31	107	52
	10 mos.	120	4,054	384	4,674	4,533	576	552	55	594	548	112	90	2,029	3,550	3,357	75.9	74.1	1,124	313	438	471
Norfolk & Western	Oct.	2,135	13,753	374	14,816	19,816	2,458	2,400	379	2,939	3,442	596	315	4,750	11,111	12,213	75.0	61.6	3,704	2,804	1,925	3,071
	10 mos.	2,135	149,661	4,505	162,098	170,327	23,713	22,509	3,107	34,995	33,437	5,890	2,984	48,318	116,286	115,071	71.7	67.6	45,812	32,229	22,442	24,854
Norfolk Southern	Oct.	643	1,031	....	1,049	1,050	228	216	13	122	133	24	49	307	786	801	74.9	76.3	263	121	88	68
	10 mos.	643	9,643	....	9,796	9,493	2,000	1,789	133	1,186	1,174	236	478	3,054	7,507	7,225	76.6	76.1	2,289	1,041	781	669
Northern Pacific	Oct.	6,881	16,027	445	17,798	17,640	2,265	2,499	244	3,172	3,045	411	318	5,948	12,389	12,416	69.6	70.4	5,409	3,249	2,703	2,472
	10 mos.	6,883	130,133	5,895	147,573	142,705	24,733	22,969	2,799	28,617	27,832	4,063	3,028	55,702	119,037	114,443	80.7	80.2	28,536	18,746	12,645	12,303
Northwestern Pacific	Oct.	331	1,238	4	1,278	1,123	348	248	17	136	99	4	6	528	1,038	815	81.2	72.6	240	147	—54	113
	10 mos.	331	10,863	66	11,264	9,752	2,688	2,306	178	1,079	982	42	55	4,352	8,342	7,687	74.1	78.8	2,922	1,373	382	345
Oklahoma City-Ada-Atoka	Oct.	132	91	....	92	113	21	24	2	3	7	....	2	23	53	57	57.2	50.3	39	20	4	22
	10 mos.	132	963	....	971	981	226	225	25	39	48	....	18	229	554	543	57.1	55.3	417	191	115	144
Pennsylvania	Oct.	10,120	72,738	11,827	94,761	94,624	12,989	11,334	1,196	23,383	21,645	3,282	1,315	38,580	79,781	76,956	84.2	81.3	14,980	6,731	6,630	8,635
	10 mos.	10,120	629,159	130,578	845,512	863,740	109,306	108,162	13,356	189,271	212,012	27,838	13,123	367,024	712,363	740,069	84.3	85.7	133,149	59,588	59,141	48,640
Pennsylvania-Reading Seashore Lines	Oct.	364	747	127	905	904	208	211	25	98	92	15	11	557	907	896	100.2	99.1	—2	130	—281	—212
	10 mos.	364	6,183	2,052	8,549	8,974	2,114	2,166	250	980	957	153	109	5,827	9,395	9,601	109.9	107.0	—846	1,199	—3,340	—3,010

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1952

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1952	Total (inc. misc.) 1951	Operating Expenses: Maint. Way and Structures: Total 1952	Total 1951	Deprec. and Retirements	Maint. Equipment: Total 1952	Total 1951	Depre. and Retirements	Traffic	Transportation	Total 1952	Total 1951	Operating ratio 1952	Operating ratio 1951	Net from railway operation	Railway tax accruals	Net railway operating income 1952	Net railway operating income 1951
Pittsburg & Shawmut	Oct.	97	165	....	166	208	40	41	4	50	48	9	3	44	148	164	89.1	78.9	18	30	25	45
	10 mos.	97	1,837	....	1,845	2,002	366	346	49	511	512	88	34	503	1,507	1,532	81.7	76.5	339	89	530	417
Pittsburgh & West Virginia	Oct.	132	758	....	770	820	151	137	26	185	211	36	53	194	612	624	79.5	76.1	158	98	119	122
	10 mos.	132	6,942	....	7,046	7,327	1,202	1,426	237	1,711	1,804	349	516	1,831	5,531	5,978	78.5	81.6	1,515	847	1,061	1,032
Reading	Oct.	1,320	11,012	579	12,340	11,869	1,687	2,035	191	2,276	2,358	430	166	4,334	3,883	9,321	72.0	78.5	3,457	1,855	1,732	1,317
	10 mos.	1,321	95,696	5,729	108,188	107,162	16,032	16,753	2,354	21,245	22,201	4,056	1,520	41,344	84,065	86,389	77.7	80.6	24,123	12,760	12,711	10,675
Richmond, Fredericksburg & Potomac	Oct.	118	1,313	408	2,024	1,985	366	348	24	301	283	67	23	677	1,491	1,438	73.7	72.5	533	286	179	124
	10 mos.	118	14,686	5,913	23,622	22,464	3,442	2,966	237	3,043	2,806	653	212	7,109	15,208	14,599	64.4	65.0	8,414	4,608	2,743	2,479
Rutland	Oct.	397	427	15	519	536	73	91	10	79	106	14	20	236	436	486	84.1	90.6	83	31	30	—4
	10 mos.	397	3,828	195	4,764	4,950	796	827	96	802	833	144	195	2,346	4,393	4,560	92.2	92.1	371	294	—97	—122
Sacramento Northern	Oct.	264	474	....	486	392	77	52	—1	17	21	4	2	106	213	180	43.8	46.0	273	16	227	162
	10 mos.	264	2,528	....	2,617	2,904	657	536	81	149	267	40	22	910	1,834	1,850	70.1	63.7	783	151	417	677
St. Louis-San Francisco	Oct.	4,601	11,169	510	12,642	11,401	1,646	1,821	133	1,897	1,806	466	319	4,071	8,493	8,330	67.2	73.1	4,149	1,966	2,087	1,350
	10 mos.	4,601	91,545	5,796	105,862	102,333	16,752	17,160	1,756	17,498	17,459	4,766	2,979	37,989	80,156	80,923	75.7	79.1	25,706	12,351	13,251	9,622
St. Louis, San Francisco & Texas	Oct.	159	437	4	477	434	48	60	3	34	35	1	23	162	279	276	58.4	63.7	198	85	56	32
	10 mos.	159	4,235	67	4,599	4,024	497	509	54	364	366	10	208	1,544	2,731	2,727	59.4	67.8	1,868	685	642	291
St. Louis Southwestern	Oct.	1,569	6,927	27	7,226	6,610	739	877	77	617	627	99	172	1,752	3,492	3,659	48.3	55.4	3,735	2,084	1,423	734
	10 mos.	1,569	58,244	364	61,046	57,908	7,430	7,383	648	6,405	6,868	963	1,663	16,730	34,139	35,842	55.9	61.9	26,907	14,051	10,624	7,391
Seaboard Air Line	Oct.	4,145	10,647	828	12,406	11,804	1,854	1,877	181	2,598	2,237	643	371	3,989	9,343	9,018	75.3	76.4	3,063	1,390	1,641	1,287
	10 mos.	4,145	110,774	12,966	133,515	123,789	19,705	20,119	1,746	24,172	21,571	5,854	3,672	42,910	95,942	92,423	71.9	74.7	37,573	17,136	18,553	13,995
Southern	Oct.	6,306	20,931	1,348	24,043	24,451	3,180	3,209	363	4,036	4,774	761	442	7,553	16,153	16,992	67.2	69.5	7,890	4,100	3,301	2,896
	10 mos.	6,306	189,814	17,416	224,151	215,306	29,639	29,488	2,745	41,054	42,462	7,557	4,370	73,993	158,163	160,491	70.6	74.5	65,988	35,484	27,432	21,425
Alabama Great Southern	Oct.	326	1,497	70	1,716	1,978	253	276	31	362	431	73	36	495	1,213	1,331	70.7	67.3	504	259	198	254
	10 mos.	326	13,867	945	16,178	16,451	2,380	3,213	214	3,770	4,027	802	340	5,116	12,248	13,768	75.7	83.7	3,930	2,471	1,370	875
Cinn., New Orleans & Texas Pacific	Oct.	337	3,324	126	3,673	3,908	483	454	37	849	788	184	68	961	2,479	2,403	67.5	61.5	1,194	843	525	524
	10 mos.	337	32,904	2,082	36,991	36,693	4,614	4,426	366	8,495	8,439	1,792	711	9,786	24,880	24,630	67.3	67.1	12,111	7,976	5,236	4,824
Georgia Southern & Florida	Oct.	397	619	41	726	739	158	147	12	81	68	8	8	234	496	451	68.3	61.0	230	64	57	72
	10 mos.	397	6,017	862	7,551	6,937	1,592	1,550	79	704	676	92	80	2,300	4,869	4,690	64.5	67.6	2,681	837	671	513
New Orleans & Northeastern	Oct.	203	1,130	45	1,246	1,274	147	148	17	135	139	27	20	236	584	620	46.9	48.6	662	414	209	189
	10 mos.	203	8,968	583	10,188	10,998	1,553	1,478	156	1,271	1,298	273	190	2,311	5,784	5,937	56.8	54.0	4,404	2,849	1,399	1,584
Southern Pacific	Oct.	8,113	46,114	3,036	52,940	47,450	5,248	4,980	484	9,970	9,535	1,589	865	18,748	36,885	34,863	69.7	73.5	16,055	8,133	6,873	5,179
	10 mos.	8,119	392,903	37,492	463,286	426,066	52,777	48,127	5,203	92,212	88,519	15,471	8,289	172,269	345,918	328,789	74.7	77.2	117,368	58,564	48,755	35,241
Texas & New Orleans	Oct.	4,291	12,144	589	13,670	12,834	2,069	1,717	129	1,609	1,896	87	258	4,484	8,979	8,854	65.7	69.0	4,692	2,175	1,501	1,260
	10 mos.	4,291	107,624	7,161	123,044	114,348	18,705	17,981	1,329	17,078	17,439	875	2,567	43,174	87,099	87,464	70.8	76.5	35,944	15,836	11,136	7,303
Spokane International	Oct.	152	250	1	268	217	53	70	2	25	22	8	5	70	163	162	60.9	74.8	105	35	43	26
	10 mos.	152	2,330	11	2,471	2,189	612	564	22	220	198	81	50	667	1,655	1,485	66.9	67.8	816	227	423	309
Spokane, Portland & Seattle	Oct.	944	2,535	79	2,783	2,554	433	477	43	372	315	97	33	859	1,814	1,736	65.2	67.9	969	402	452	558
	10 mos.	939	23,567	968	26,077	25,657	4,176	4,065	566	3,328	3,087	924	282	7,940	16,653	15,932	63.9	62.1	9,424	3,395	5,089	5,045
Tennessee Central	Oct.	286	538	4	572	510	77	95	5	66	68	20	11	159	337	350	59.0	68.6	235	104	82	96
	10 mos.	286	4,196	34	4,482	4,304	920	905	52	653	683	195	118	1,437	3,346	3,352	74.6	77.9	1,136	365	420	367
Texas & Northern	Oct.	8	100	....	113	122	6	7	....	12	17	2	1	25	49	60	43.8	48.8	63	33	17	17
	10 mos.	8	964	....	1,076	1,190	55	133	1	93	121	24	10	241	448	607	41.7	51.0	628	316	189	162
Texas & Pacific	Oct.	1,834	6,524	343	7,519	7,001	974	948	116	1,035	1,079	244	198	2,227	4,734	4,709	63.0	67.3	2,786	988	1,509	1,027
	10 mos.	1,834	59,006	3,926	68,651	64,033	9,545	8,763	1,066	11,244	9,903	2,496	1,809	21,456	47,414	44,860	69.1	70.1	21,237	8,159	10,240	7,833
Texas Mexican	Oct.	162	291	....	311	295	78	87	5	30	33	9	8	93	231	205	74.1	69.2	81	40	18	23
	10 mos.	162	2,739	....	2,921	2,789	694	700	61	336	343	83	84	634	1,945	1,938	66.6	69.5	976	427	324	280
Toledo, Peoria & Western	Oct.	239	694	....	710	611	109	78	6	43	28	9	49	141	379	302	53.4	49.3	331	157	125	121
	10 mos.	239	5,637	....	5,728	5,673	998	977	62	460	385	93	443	1,294	3,540	3,464	61.8	61.0	2,187	1,005	745	745
Union Pacific	Oct.	9,834	46,249	2,693	52,408	49,147	6,047	5,245	553	8,530	8,064	1,190	856	17,356	34,965	32,860	66.7	66.9	17,443	9,499	5,729	5,715
	10 mos.	9,851	359,861	33,405	426,650	415,938	61,921	56,380	5,441	76,886	77,546	11,725	9,005	150,968	321,023	313,000	75.2	75.3	105,628	65,907	25,142	26,476
Utah	Oct.	110	119	....	119	172	30	10	2	36	48	9	1	42	116	135	97.6	78.6	3	7	12	43
	10 mos.	110	1,183	....	1,186	1,037	245	164	21	453	464	71	8	548	1,331	1,192	112.2	114.9	—145	98	—119	—130
Virginian	Oct.	611	2,552	1	2,660	4,592	361	549	57	752	1,033	171	46	720	1,971	2,668	74.1	58.1	689	498	452	787
	10 mos.	611	35,144	19	36,507	38,697	4,742	4,592	583	8,579	8,505	1,725	458	8,571	23,287	22,802	63.8	58.9	13,220	8,172	6,762	7,440
Wabash	Oct.	2,393	11,124	412	12,400	10,966	1,310	1,381	67	1,286	1,163	360	299	4,344	7,636	7,228	61.6	65.9	4,764	2,136	2,076	1,473
	10 mos.	2,393	83,897	4,272	95,487	91,863	12,645	13,469	1,130	12,732	11,914	3,423	2,877	38,721	70,642	69,785	74.0	76.0	24,845	10,327	10,052	7,290
Ann Arbor	Oct.	294	719	2	741	756	114	101	19	137	101	30	27	312	611	581	82.5	76.8	130	58	75	55
	10 mos.	294	6,032	6	6,141	7,784	1,056	1,006	172	1,150	1,058	299	254	2,615	5,259	5,732	85.6	73.6	882	327	471	771
Western Maryland	Oct.	836	3,886	10	4,095	4,187	540	493	82	699	843	148	90	1,222	2,731	2,810	66.7	67.8	1,365	785	890	769
	10 mos.	836	36,579	96	38,718	39,541	4,621	5,336	525	8,021	7,974	1,708	873	12,298	27,646	28,115	71.4	71.1	11,072	6,522	6,900	6,664
Western Pacific	Oct.	1,193	5,705	238	6,071	5,538	1,004	732	75	669	638	121	190	1,406	3,508	3,189	57.8	57.6	2,562	1,379	1,027	938
	10 mos.	1,193	41,940	2,717	45,767	45,724	7,982	6,245	808	6,489	6,575	1,137	1,867	13,575	32,270	30,029	70.5	65.7	13,496	6,959	5,463	6,084
Wisconsin Central	Oct.	1,046	2,862	33	3,103	2,767	290	437	23	386	420	66	70	1,140	1,993	2,127	64.2	76.9	1,110	292	641	259
	10 mos.	1,046	23,961	456	25,975	25,807	3,692	3,746	360	4,312	4,472	650	693	10,720	20,464	20,719	78.8	80.3	5,512	1,638	2,368	1,897



Safety Switches

Immediate availibility of a new 200-amp., 600-volt, fusible and no-fuse front-operated safety switch has been announced by the Trumbull Electric Department of the General Electric Company, Plainville, Conn. This switch rounds out the line of similar 30-, 60-, and 100-amp. switches previously developed by this company. All of the switches are now equipped with a felt gasket which blocks dust and dirt in much the same manner that weather-stripping stops drafts.

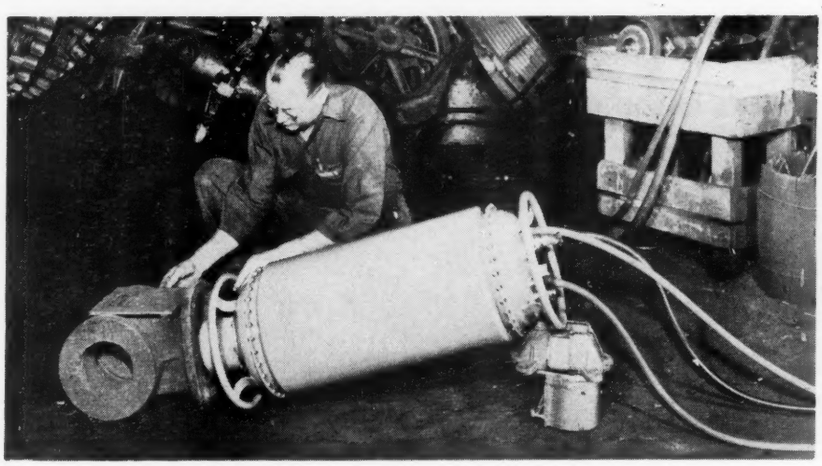
The arc-quenching action of this switch is patterned after the arc-interrupting principle of modern circuit breakers. The double-break, visible contacts are opened and closed at high speed. Grid pins break up the arc, divide it into a series of smaller arcs, and dissipate the heat.

Brush for Diesel-Electric Traction Motors

A new traction motor brush grade for Electro-Motive Division diesel-electric locomotives has been announced by National Carbon Company, a division of Union Carbide & Carbon Corp., New York 17. This DE-3 brush is described as a product of a new, scientific approach to the problem of special purpose brushes particularly designed to meet the severe operating demands of diesel-electric traction motor service. It has been tested in both freight and passenger service under difficult operating conditions on 7 Class I railroads, covering a total of more than 7½ million motor-miles.

The manufacturer states that the brush has given exceptionally long service life.

Three features claimed for it are increased mechanical strength, reduced friction and permanently sealed shunt connections. These qualities, it is said, result in greater dependability and substantially lower brush and maintenance cost-per-mile.



Midget X-Ray Machine

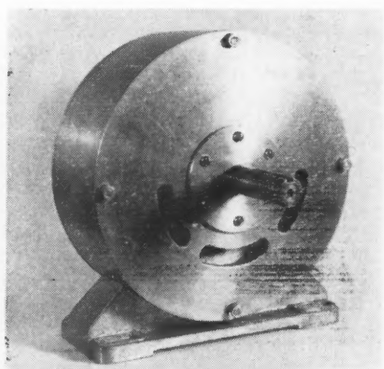
A midget-type industrial 250,000-volt x-ray machine, less than half the size and less than an eighth the weight of the conventional quarter-million-volt unit, has been devoloped by the General Electric Company, Milwaukee 14, Wis. It is capable of x-raying steel up to 3½ in. in thickness and can be carried around in shops and yards, where x-ray inspections are needed to control quality and safety.

The unit is less than 15 in. in diameter, 44 in. long, and weighs 150 lb.

A feature of the unit's versatility is its protruding snout from which the x-rays are emitted, which makes possible taking inside-out x-ray pictures. This, it is expected, will greatly speed up the process and reduce the many problems now faced in making x-rays.

In setting up for the inspection of a weld joint connecting two sections of a pipe, for example, the x-ray technician can bring the x-ray unit inside the pipe and change its position for each exposure area without disturbing the pipe. He can also use it inside large castings and other areas difficult of access, or insert the snout inside a smaller casting.

Operating at anywhere from 75,000 to 250,000 volts, the new unit can be used on anything from magnesium to steel. Use of the machine on light metals is also aided by the beryllium window of the x-ray tube, which allows the escape of softer, less penetrating x-rays from the tube.



400-Cycle Generator

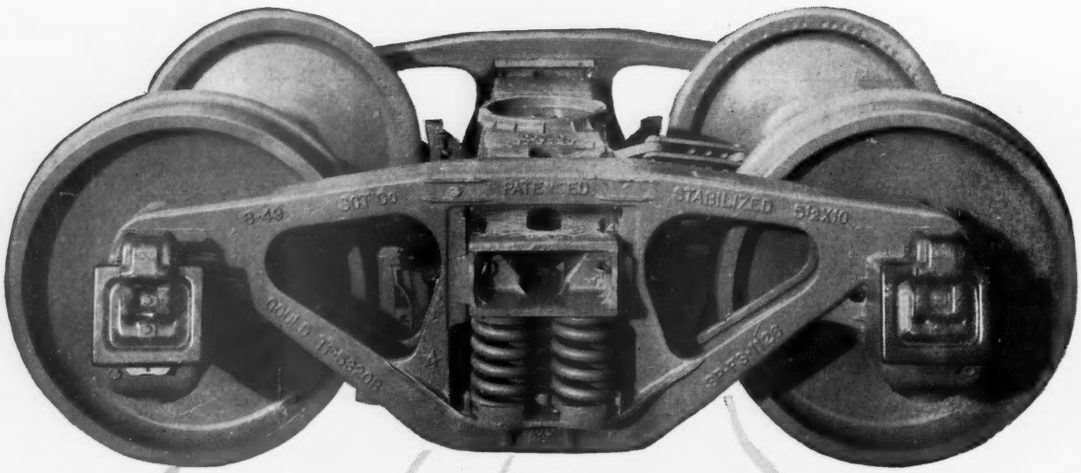
The Generator Corporation, Electric Products Division, Arlington, Va., has announced an improved Nobrush 400-cycle electric generator. Brushes are made unnecessary by a permanent magnet construction. The manufacturer states that the machines are not damaged by moisture or overload or short-circuits, that they have long life, require little maintenance, and do not cause radio interference.

Units are furnished for belt drive or for mounting on driving motors or engines.

Complete motor-generator or engine-generator sets are available.

The generator is adapted for portable power units, for mounting in marine craft or vehicles, or for operation of high frequency portable power tools.

Outputs range from 250 va. to 25 kva. Usual voltages, single or three phase are provided.



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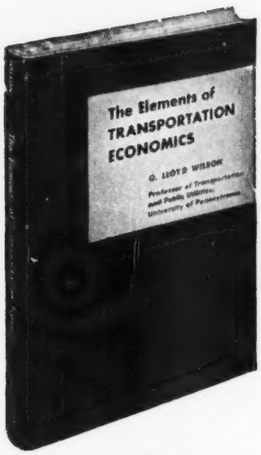
The Elements of

TRANSPORTATION ECONOMICS

by G. Lloyd Wilson

Professor of Transportation, University of Pennsylvania



To get ahead in the transportation field, you must have a grasp of the larger issues of the subject. You can't get by, for instance, without an understanding of how transportation, industry and commerce mesh together—and how this set-up will develop in the future. This is basic and your key to understanding it is familiarity with basic transportation economics!

Do you know how Transportation determines whether a given industry is to be conducted as a large, medium or small-scale enterprise? What "place utility" is? How "cross-hauling" can be justified? Can you name six well-defined channels of marketing manufactured goods? Or fifteen principal classes of transportation instrumentalities? These and many more answers are yours in Dr. Wilson's keenly-written analysis. You will find exactly what you need in Dr. Wilson's book.

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Benchmarks and Yardsticks

ONE OF THE UNHAPPY SITUATIONS of constant recurrence around the railroads—and everywhere else—is the sudden inattention which often befalls a "big shot" the very moment he retires. One day he has a myriad of friends, his judgment on all questions is sought and deferred to, and all his jokes are funny. The very next day, only the stalwarts among his friends are left, there are few who seek or heed his counsel, and his jokes stand or fall on their intrinsic merits.

Such treatment, while always saddening, is not always wholly undeserved. If the "big shot" is the type who, during his incumbency, constantly reminded his entourage of the reverence due him because of his job, then nothing could be more just or reasonable than the disappearance of the reverence when the job used to justify it has passed to another. Moreover, a man who has retired from an important position doesn't always fully appreciate that he no longer is held responsible for results and, hence, should subordinate his opinions to those of the man who has been given that responsibility.

Nevertheless, all the excuses that can be offered for the precipitate decline in attention which the retired "big shot" suffers can seldom justify the degree or suddenness of the inattention. The old boy is certainly just as wise the day after he retires as he was the day before. Having more time to devote to conversation, he is in a better position to share this wisdom with others than he was during his active career. Hence his friends, instead of giving him the absent treatment, may often find that he could be more helpful to them and more entertaining than ever.

How the retired chief is treated is, actually, more of a test of his friends and of his successor than it is of him. If they cut him off short, without recognizing the intrinsic worth still remaining in him, their behavior will reveal their measure. Indeed, such occasions afford one of the relatively few opportunities when a pretty accurate yardstick is laid on people for all to see. When the new incumbent observes the people who turn quickly from courting his predecessor to shunning him, he'll know pretty accurately how much reliance he can put in such people.

Looking forward toward what his status will be when he retires ought to provide plenty of incentive for a fellow to do his work in such a manner that he will be an adornment to the position, rather than the other way 'round. If it's the man himself rather than the title he holds who attracts the attention, then much of the attention is bound to remain even when the title passes to another.

J. G. L.

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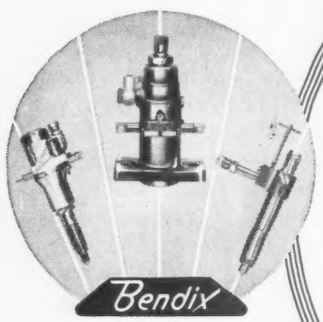

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HOW TO LEARN MORE ABOUT PEOPLE

The season is now here when all us aging Joes are required by the folks at home to put aside the pompous disguises in which we earn our daily bread, and crawl under the Christmas tree with the kids for a day or two. The holiday season plays havoc with the old man's bank balance, but it's worth what it costs to get him down to reality—even if for only a couple of days out of the 365.

It isn't sentiment alone which points to this conclusion, but also the utilitarian objective of improved effectiveness in management, which comes about to the degree that managers are truly human. Anybody with responsibilities for leadership or supervision can't possibly know too much or sympathize too much with that curious creature called man. And one of the best places to learn most about him is from watching children—who haven't been around long enough to be distorted by experience into behaving unnaturally. Kids haven't yet learned how to dissemble. When they're happy or gloomy or angry, everybody knows it. With adults, it's next to impossible to tell for sure how most of them really feel, unless you've learned to read between the lines of their actual behavior.

For a man in a supervisory job, no knowledge is so necessary or so hard to get as knowledge of people—what makes them tick or not tick at all, or tick irregularly or unpredictably. A man can go to school and learn how to use a transit and how to handle metals and mix cement and operate machinery economically. But his schooling won't help him a bit in the hardest part of his job—getting on with people, especially how to persuade them to cooperate. Indeed, too much time in school may even be a handicap in this part of the assignment, because going to school means the sacrifice of valuable years of experience in actually dealing with people on the job.

Some things can be learned about people by reading books and by formal study, but a large part of the information thus purveyed is distorted and not to be depended upon. Like a surgeon's knife, such specialized information is safe only when in the hands of a mature expert. The study of economics, for instance, is illuminating, but only if the student has sense enough to realize that the "economic man" is only an abstraction, and that economic motives are no more to be relied upon, alone, as a key to human conduct than dissecting an arm could give a picture of human anatomy as a whole.

One of the reasons that economists are in such bad repute is that economic skills have proved to be a dangerous weapon when in the hands of people who don't know anything but economics. The youngster in a jallopy may be a more skillful driver than his father but he is also a worse insurance risk.

Karl Marx took this fractional view of man—as motivated only by economic self-interest—and developed a theory of behavior which attracted a following and proceeded to create a hell on earth for millions of human beings; and the mischief this Satanic intellectual misfit has done, with his stupid conviction that a small fraction of man is all there is to him, may not even yet have reached the top of the grade.

Most people who have studied man and presumed to instruct others about him have made the same mistake that Marx did—though usually not with such disastrous consequences. Almost without exception, these specialists, having studied only a fragment of man, fool themselves and their unwary followers into the belief that what they've observed of a part is true of the whole. It just isn't so. The physiologists tend to see man only as an animated mechanism—not essentially different from a frog or even a worm. Some philosophers have ascribed more rationality to him than he has, and one school of psychologists gives him credit for no independence of mind at all. None of these specialized aspects of man reflects what he really is—a whole, much greater and more complex than any part, or even the sum of the parts.

Hundreds of millions of dollars go into research to find out how molecules and atoms and electrons work and how they can be made to operate more and more machines more efficiently—while practically nothing is spent to increase knowledge about the unique behavior of these particles when they're combined into their

most significant grouping—man himself. Here and there this deficiency is recognized and initial steps are being taken to remedy it, but it's a long, hard road and an unfamiliar one. Until it's been explored much farther than it's likely to be for many years yet, there'll be no substitute for experience in learning about people and how to induce them to cooperate.

Meantime, the principal help that can be derived from books will be found in traditional writings that represent the accumulation of the insight of generations of men—especially the Bible; the observations of maturely sagacious men (Socrates, Bacon, Emerson, James); and great literary artists such as Shakespeare. Practical guidebooks in human relations, based on actual practice rather than theory, are helpful too, and one of the best of these was written by a railroad man, K. C. Ingram, of the Southern Pacific.

These notes are not set down in an outburst of strictly seasonal piety, but in the belief that they might offer some practical suggestions for dealing with practical problems. This conviction was strengthened a couple of weeks ago when your reporter was privileged to sit with a group of near-top industrial executives in a "refresher" course at a large educational institution. At one point the lecturer reminded his hearers that "the meek shall inherit the earth." He was not speaking in jest, but in all seriousness, as the result of many years of studious observation of the failures and successes in business managements; and his purpose was not to instruct his audience how to get to heaven, either, but how to be successful in their jobs in 1952.

It is not unlikely that the future of freedom lies in the hands of business management in the Western World, and on this continent in particular—depending on whether management here can succeed in inducing a quality of cooperation which will be superior to that obtained in other parts of the world by crude coercion. The biggest part of this job lies in knowing people, including children—and using all occasions, of which the Christmas holidays are one, to deepen that knowledge. The inquirer in this field, we are reliably assured, won't learn much unless he himself takes on the expectant and open-minded humility of a little child.

"SIX OR SEVEN CHANGES . . ."

"I invite you to consider the situation which confronts the whole railroad industry—a situation resulting from a maze of federal regulations and controls so archaic and unrealistic as to threaten seriously the continued existence of American railroads as a part of the free enterprise system. . . .

"Railroads are often prohibited from discontinuing a passenger train even though other means of transportation exist, patronage has disappeared and the railroad is losing huge sums to provide such unused service . . . The simple facts in a case are often disregarded, with the issue becoming a political football. The result is the loss to the industry of hundreds of millions of dollars a year, and the overall expense of operating railroads being artificially increased by that much.

"The railroads are not allowed to charge a higher rate for a shorter haul than for a longer movement of the same traffic over the same line or route in the same direction. Because of this they lose a lot of the most profitable business to their competitors, who do not have such restrictions on their operation. . . .

"In addition, railroads are not allowed to adjust freight rates up or down without going through lengthy hearings. The average time consumed by the I.C.C. before handing down a decision on the four general rate adjustment applications filed since the end of World War II was 354 days. This unreasonable delay has cost the railroad industry well over a billion dollars since 1946—money which increased costs of operation made absolutely essential to the continuation of improvement and efficiency programs. Were it not for this one single item, freight rates today would be lower than they are. . . .

"Another prohibition which has contributed importantly to the present dangerous state of railroad revenues is a provision in the Interstate Commerce Act which requires that the commission estimate the effect of a rate change on volume and movement of traffic. This right to 'be wrong' is thus taken away from the railroads, although it is clearly a prerogative of management. This provision, called 'the rule of rate making,' must be amended to remove the allocation of this right to the commission and substitute a direction that the commission give consideration to the effect of proposed rates on maintenance of railroad credit. This change in policy would assuredly forecast a healthier financial future for the industry. .

"A second policy change which railroad people believe to be essential is an amendment to the Interstate Commerce Act which would require contract air and truck carriers to publish and adhere to the rates they actually charge. At the present time there is no such provision. A sound principle of transportation regulation is that the rules must apply fairly to all media. This change would help restore the principle of fair competition to the transportation industry and tend to route traffic along the most efficient channels.

"A third policy change which we of the railroads are convinced is necessary to a sound national transportation system would amend the Interstate Commerce Act so as to require that allocation of public funds to the improvement of waterways must be preceded by a determination that there is an economic need for them and that they will be able to sit on their own bottoms, so to speak, as economic projects, supported as to cost and maintenance by adequate user charges.

"The six or seven changes in federal transportation law which I have just outlined to you are essential to continued operation of American railroads under private ownership."
—*From an address by Perry M. Shoemaker, president of the Delaware, Lackawanna & Western, to the New Jersey Association of Real Estate Boards.*

Rates Should Be Made Like Competitive Prices, Which They Are

Nobody—producer or user—benefits when rates are laid on arbitrarily, like excise taxes or tolls

By G. LLOYD WILSON*

Freight rate-making is an art—the art of pricing transportation services at levels which will retain and attract traffic in a volume permitting economic utilization of facilities and yielding a margin above costs which will result in net earnings at an attractive ratio to investment. If—by reducing rates on types of goods which they have lost because of high rates, and for which reductions there is reasonable economic justification because of comparative service or cost advantages—carriers reattract such errant traffic, their action is both wise and economically justified.

If the rates reduced to recapture traffic attract more traffic, they produce more gross revenue and carry over into net revenue all the revenues, above out-of-pocket costs, brought by the reduced rates. The art of rate-making is to find the prices (rates) which will recapture lost traffic and attract new traffic—and benefit both the carrier and its patrons simultaneously.

All this is elementary, but rates are not always made this way. Present freight rates—or many of them anyhow—are considered by many students of transportation to be in the upper area of the zone of reasonableness. Despite or because of their high level, they frequently fail to produce the volume needed to yield net revenues sufficiently attractive to induce new investment, which is needed to keep transportation service adequate and modern. This unfavorable condition suggests that rate-making practices need to be examined critically. With the heavy volume of traffic now moving, carriers should be flourishing if their pricing were right. Many of them, however, have large traffic and high gross earnings, but low net revenues. Many are experiencing a discouraging period of "profitless prosperity."

Freight Rate-Making

The art of freight rate-making involves adjusting prices to a point which is attractive to users, while yielding a comfortable margin of net revenue for the producer. These objectives cannot be attained by following a rigid formula or a single rate pattern, but by the process of negotiation between carriers and shippers, as permitted within the framework of government regulation. The task calls for the exercise of managerial discretion by the carriers, and of commercial judgment by the management of the producing, manufacturing and distributing industries which use transportation. If government rate regulation supersedes managerial or commercial judgment of carriers and their customers—beyond assuring that rates are compensatory, reasonable and equitable—then the rate-making process is not likely to produce satisfactory results.

*Dr. Wilson is chairman of the transportation and public utilities department at the Wharton School, University of Pennsylvania.

Tests for Determining Whether Rates Are Healthy

1. As a minimum, individual freight rates should not be below out-of-pocket costs of performing the services.

2. The average of all rates should not be below fully allocated costs plus a reasonable return upon the value of the property used for transportation—a return sufficient to attract an inflow of new capital adequate to insure satisfactory and solvent operation.

3. No individual rate should be above the ceiling of rate reasonableness—"what the traffic will bear," considering the value of the service to the shipper, and the prices of the goods at origin and destination.

4. Freight rates should be free from arbitrary discrimination as between persons, places and descriptions of traffic.

5. They should be free from arbitrary preference and prejudice in favor of or against any persons, places and traffic.

Some of the trouble in actual rate-making comes from the persistence of tradition—a hang-over from the days of monopoly in transportation when rates did not have to be considered as competitive prices, but could be, and actually were, looked upon as a combination of (1) tolls for the use of the railed-highways by the users who supplied their own flanged-wheeled vehicles to haul the persons or goods; and (2) charges for the transportation service rendered, including the vehicle and motive power.

This dual nature of early freight charges is indicated in early railroad charters. The charter granted by the Commonwealth of Pennsylvania in 1846 to the Delaware, Lehigh, Schuykill & Susquehanna (now part of the Lehigh Valley) authorized the railroad to—

"charge and take toll for freight and transportation of passengers, goods, wares, merchandise, property or minerals at rates as follows, to wit: On goods, wares, merchandise, property or minerals transported on said railroad, or any finished product thereof, any sum not exceeding one and one-half cent per ton per mile for *toll*, and one and one-half cent per ton per mile for transportation, and for *toll* and *transportation* of passengers not exceeding three and one-half cents per mile for each passenger."*

*Authority granted by Commonwealth of Pennsylvania to D.L.S. & S.R.R. Co., April 21, 1846.

Some Ways to Produce Clumsy Rates

1. Over-emphasize distance or mileage blocks;

2. Relate commodity rates to class rates by use of "column" rates or percentages of class rates, so that changes in class rates, designed primarily for merchandise traffic, result in changes in the relationships of commodity rates whether or not such changes are justified;

3. Make general rate increases which disrupt rate relationships among producing areas and markets with attendant disruptions to commercial and carrier competition;

4. Shift deficits incurred in unprofitable traffic to other traffic considered "captive," resulting in placing inequitable burdens upon the "captive traffic" or in inducing "captive industries" to escape by establishing private transportation, or by some other expedient;

5. Issue minimum rate orders, depriving users of transportation of the price advantages offered by relatively more efficient carriers; and

6. Graduate freight rates according to weight by all forms of transportation, sometimes working to the disadvantage of carriers of types whose costs do not vary in proportion to weight or at uniform rate progression, and depriving shippers of rates based upon the relative efficiency of the carriers in handling lots of different sizes.

The emphasis upon rates as taxes or tolls, rather than prices, is especially evident in countries where railroads and other instrumentalities of transportation are nationalized.

In these countries freight rates are usually made upon distance or mileage patterns giving little consideration to the needs of the purchaser of transportation. Under nationalized transportation, freight rates can be used to favor or promote government enterprises or to assist in the development of sections of the country upon grounds of political expediency, or to help along the development of a "planned economy." Rates under nationalized transport schemes can be, and often are, made without regard to costs of performing the service and, if necessary, operating deficits can be, and are, defrayed out of general taxes. There is continual temptation under nationalization or other patterns of government ownership and operation of transportation, that emphasis in freight rate-making will be shifted from commercial and industrial considerations to political and social considerations.

The treatment of rates as if they were similar to tolls or excise taxes does not fit the present highly competitive freight market, and does not conform to the cost characteristics of the carriers.

Inadequacy in rate-making practice is unhappily not confined to countries where transport is nationalized. Compensatory rates, fair alike to carriers and shippers, are attainable only by continual examination of rates and charges to determine their conformity to the criterion of reasonableness—economic and commercial reasonableness especially. Critical examination should be made continually by carriers, users, and government regulatory agencies. The criteria by which freight rates may be judged are tabulated at the top of page 33.

If freight rates are to serve the purpose for which they are intended—as the prices which call forth the commercial incentive needed to produce an adequate supply of transportation service at charges users can afford to pay—then rate-making must conform to the five criteria tabulated herein as Tests for Healthy Rates. Criteria No. 4 and 5—forbidding arbitrary discrimination—while important and required by law, do not need as much emphasis and attention under competitive as under monopolistic conditions.

Carriers Should Make Their Own Rates

Freight rates, if they are to protect the public interest by being economically sound, should be based upon the cost characteristics of the type of carrier which makes them or for which they are made. If one type of carrier can provide adequate service at rates which are compensatory to it, it should be allowed to establish its rates without regard to the rates of carriers of other types; and should not be required by minimum rate orders of regulatory commissions to establish and maintain higher rates in order to protect higher-cost carriers. A policy of protecting higher-cost carriers against the competition of those of lower cost characteristics with respect to particular traffic or hauls, raises an umbrella over the less efficient type of carrier and deprives the users of the services of the type of carrier having the comparative cost advantage and, consequently, a potential rate advantage.

Such a policy of protection of less efficient carriers and the deprivation of shippers of the advantages of the competition of the more efficient carriers is contrary to the policy of the Congress as expressed in the declaration of National Transportation Policy and the

Some Places Where Cost Data Are Needed

1. In the relationship between costs and the size of shipments, via different types of carriers;

2. In the relationship between costs and the distance shipments are transported by carriers of differen kinds:

3. In the costs of billing and other terminal services with respect to shipments of different sizes and distances, and via different forms of transportation; and

4. In variation of carriers' costs between shipments of the same commodity for same origins and destinations—when shipments are offered with predictable regularity, or only irregularly or in emergencies, under conditions when carriers must provide "standby" facilities which are used infrequently.

provisions of the rules of rate-making as contained in all four parts of the Interstate Commerce Act.

Some defects in freight rates—which impair their effectiveness as transportation pricing and which result either in the diversion of traffic from one type of transportation to another or deprive shippers of the benefits of the competition of the relatively more efficient carriers in respect to particular traffic—are shown in the tabulation at the top of page 34.

Cost Studies Basic to Rate-Making

Costs of performing transportation services of various kinds, for different distances, for different weights, and via different types of carriers, are important elements in freight rate-making. Costs of service are not the only factors which should be taken into account in making freight rates, but it is imperative that cost behavior be understood and considered as one element in rate-making. The making of freight rates upon more logical bases would be facilitated by empirical studies in the four areas enumerated at the bottom of page 34.

If such cost studies should establish substantial cost variations in these circumstances, the carriers for which such cost characteristics are shown should be allowed to use these costs in competition for traffic. To deny them this right is a contravention of sound economics.

Some Innovations That Deserve Study

It is not the purpose of this discussion to suggest dogmatically a program for freight-rate reform. There are some specific proposals which need examination, though—in the interest of getting freight rate-making back into the realm of free-market economics—where the restoration of competition requires it to be, if transportation is to survive and prosper as a private business. These proposals include:

- Freight rates which diminish as the quantity increases beyond the vehicle minimum and approaches the vehicle capacity—to encourage the more efficient use of the weight and cubical capacity of the vehicles. The carrier and shipper are both benefitted by such rates if properly adjusted to encourage maximum practicable loading.
- Freight rates offered via different types of carriers—railroad, steamship, barge, motor vehicle, air or pipe line—on quantities appropriate to the carrying capacities of the vehicles used by the different types of carriers.
- Large-lot freight rates to encourage large-lot movements where large lots can be moved at lower unit costs, coupled with arrangements for the pooling of smaller lots so as to make large-lot rates available to small shippers or consignees—e.g., train-load or ship-load-lot rates.
- Group rates embracing competitive points of production or manufacture, and competitive distribution or consuming points, preserving the interrelationship of freight rates among the origin and destination groups so as to establish and maintain equitable competitive commercial relationships.
- "Agreed charges" or "contract rates" established by negotiation between carriers and shippers, conditioned upon the agreement to accept and transport certain quantities of freight over a period of time, or all shipments to and from designated points, or all freight of certain types in consideration of rates agreed upon by shippers and carriers. Such rates would be subject to scrutiny and regulation in the public interest by the Interstate Commerce Commission and would be available on the same terms and conditoins to all shippers who can use them. Both the economic and legal aspects of "agreed charges" or "contract rates" need examination.
- The present serious attempt on the part of railroads to standardize and simplify freight tariffs is commendable—and could well be accompanied by efforts to republish tariffs to bring them up-to-date as rapidly as possible.
- One of the most important problems in rate-making and regulation is that of reducing the lag between the time the carriers' costs have been increased as a result of wage increases, some of which have been retroactive, and increases in prices of materials and supplies, and the time when freight rate increases are authorized to compensate for increased costs.

Freight rate-making and its regulation have moved into a highly critical period. Carriers should be given, and should be encouraged to exercise, greater latitude in negotiating rates compensatory to them and acceptable to users within the zone of rate reasonableness. The traditional pattern has broken down. Physically, there has been a revolution in transportation in the past two decades.

Most legal and regulatory prescriptions for rate-making—and the habit patterns of transportation people in their approach to rates—antedate the day of the long-haul truck and the modern barge. They go back to the time when there were no improved rural highways, almost no improved waterways, few pipelines and no airplanes. Freight rates now are prices in a highly competitive market, and realism requires that they be so treated. They should be made by the producers and users of the service and not levied or prescribed as though they were taxes. Government regulation to insure the protection of users and carriers against rates above or below the zone of reasonableness is a proper sphere of government responsibility, but not the prescription of specific rates or insistence upon any rigid formula for their determination.

Will Railway Movement of Coal Decline?

Changes in relative volume of energy from various sources weakening railway position—Movement by pipeline and conv ersion to liquid fuel may accentuate trend

By L. K. SILLCOX
Vice-chairman of the Board,
New York Air Brake Company

This article is adapted from a lecture by Mr. Sillcox at the Massachusetts Institute of Technology. The facts are comprehensive; the interpretation challenging.—Editor.

The energy industry at the close of this century can be envisioned as follows: coal will be mined at low cost with ingenious machines and at a rate of production at least five times that of the present. The coal will be crushed, partly cleaned if necessary, and transported by pipeline to points where water supplies are adequate. The coal will be continuously distilled under conditions that will yield: (a) a maximum amount of tar; (b) some aromatic chemical intermediates, and (c) fine char.

The bulk of the char will be transported by pipeline to suitable points for use under large boilers and for generation of electric power. The tar from the primary distillation of coal will be converted to conventional liquid fuel by the hydrogenation process. The system will be sufficiently flexible to balance the electric power and liquid fuel production with respective demands. This is not advanced as necessarily a prediction of what will happen, but what could happen.

The transport of energy by the carload is so entwined with the demands for fuel, both as to quantity and form, that the two cannot be divorced. It is apparent that we should investigate fuel trends as a basis for an evaluation of the railways' position in future energy transport.

The production of liquid fuel from oil shale and coal is an inescapable eventuality in the future industrial economy of the United States. That our petroleum resources are limited is recognized both by the fuel industry and government agencies. On the basis of the present state of the synthetic fuel program, Eugene Ayres, technical assistant to the executive vice-president of Gulf Research & Development Co., has arrived at definite conclusions relative to our future fuel demands and how they will be met. These conclusions, summarized briefly, are:

- To attract capital in competition with other business enterprises, the wholesale price of gasoline would have to average at least eight cents per gallon more than the present markets if the extraction of oil products from shale is to be accomplished without monetary loss. Some billions of barrels are available in favorable locations and additional billions could be produced from less accessible oil shale at higher costs.
- The United States is consuming more than two billion barrels of petroleum per year. Present indications are that production of oil from shale will be limited to about seven billion barrels during a period of approximately 20 years. Thereafter, the production rate will decrease at elevated costs.
- Oil shale reserves present but about three per cent of our coal reserves. We must, therefore, depend in the future upon coal, albeit realizing that coal hydrogenation could not be practiced without untenable economic loss. To earn an interest rate of 3.5 per cent on investment, the wholesale price of gasoline would have to rise 18 cents per

gallon and, if private capital is to be attracted, the price would have to be at least 44 cents higher.*

- To substitute liquid fuel from coal completely for United States petroleum consumption would involve tripling the present coal-mining industry at an investment of $100 billion and the employment of 1-1/3 million employees.
- The technology of coal hydrogenation is complex and involved; its difficulties are inherent and no substantial improvement is expected from future development work. While coal hydrogenation as a complete series of operations is not to be considered, parts of the process are certain to be applied.

Future Estimates

Various estimates have been made of the demand in the United States for petroleum products during the next few decades. According to one of the most generally accepted estimates, a production curve with apex in 1960 and with a production of less than three billion barrels per annum can be expected. Importation should rise sharply between 1960 and 1970, but imports will begin to be impeded by a world shortage. By 1980 our imports should be vast, for we shall probably need more than five billion barrels per annum while producing only about one billion.

Maximum annual world production is not likely to be much higher than seven billion barrels. This peak may come about 1985. Maximum world demand will probably be 40 per cent more than production.

The exploitation of oil shale can be expected to mature by 1965. But since oil shale cannot supply (at reasonable cost) more than a small portion of our annual demand, it will be essential to have utilization of coal well under way by 1970 and operating on a tremendous scale by 1980. Plausible demand and production figures for 1980 are: demand, 3.5 billion barrels, made up from coal tar (1.7 billion), petroleum (1 billion), shale oil (0.3 billion), and Fischer-Tropsch conversion of char (0.5 billion). If moderate importation were possible, conversion of char could be eliminated.

These figures are based on average recovery of 0.5 barrel of liquid fuel per ton of coal. With such demands before us, our anticipation of the possibilities of atomic energy is readily understandable. Beyond 1980 the production of coal tar should rise more rapidly than production of petroleum will drop.

It is inconceivable that large industries, such as steel, will be supplied with fuel by pipeline over long distances. It is reasonable to conclude that such industries will continue to consume bulk fuels and that the railways are not to be considered "out of the picture" entirely, however seriously we may view their future in the light of the inescapable trend toward oil fuel and electric energy —at the same time bearing in mind the future possibilities of atomic energy.

The demand for electric power is advancing at a phenomenal rate—about three times as fast as the demand for liquid fuel. Much is heard of hydroelectric power supply, both actual and potential, but hydroelectric plants will be able to provide but a minor portion of future demands. Therefore, our major dependence must be upon coal, as has been true, with but one exception, throughout the years. This is illustrated in the graph, in which the annual supply of energy from mineral fuels and water supply, 1899 through 1950, is presented.

It is charged that the major hindrance to successful railway competition is the present rate structure. In fact, major coal producers currently state that their principal difficulty in competition with the oil industry is the freight rate schedule as compared to the much lower charges assessed by pipelines for the transport of liquid fuel.

Whether or not the coal producers are correct in their contention, the inroads of petroleum products in the fuel market are materially damaging to railway freight revenue. The increased oil consumption throughout the period 1928-1950 has resulted in a revenue loss to Class I railways of $1,565,084,928.* The revenue loss of those same railways attributable to increased popularity of natural gas has been even greater than that resulting from the trend to fuel oil, the comparable figure being $1,743,507,553.† The aggregate loss, therefore, is in excess of $3 billion.

The transportation of coal from mine mouth to market is a major moving job in America today. In 1950 the railways loaded 7¼ million cars of revenue coal. They provided 80.8 per cent of total bituminous transport in 1950 as contrasted with 88 per cent for the 1932-34 average. Meanwhile, the waterways increased their portion from 3.7 per cent to 5.3 per cent, while the trucks slightly more than doubled their portion of the traffic, increasing the percentage from 5.5 to 11.3.

Moving this quantity of fuel to market requires a plant of sufficient capacity, a vast array of equipment, coordinated effort, and operating skill. Coal must be moved from the mines as rapidly as it is mined since it is impractical and often impossible to store coal at the mine mouth.

It is probably only natural that the railways should be the primary carrier of coal. For many years they were the greatest consumers of that fuel. As recently as 1947 the Class I railways constituted the largest single customer of the bituminous coal industry. Coal is a billion-dollar-a-year traffic commodity to the American railway industry.

Present Status of Bituminous Coal

A recent report of the Bituminous Coal Institute is the authority for the following data applicable to the bituminous coal industry in 1951. The industry produced about 535 million tons, which was more than 20 million tons above the 1950 figure and almost 100 million tons more than the 437 million tons output of 1949. Domestic consumption amounted to 465 million tons, an advance of 11 million tons over 1950. More than 34 million tons were exported overseas during the year as compared with 2½ million tons in 1950. It is predicted that the 1952 exports of bituminous coal will be about 33 million tons.

Among the major 1951 domestic markets, the steel industry consumed 113 million tons, a new high, and a gain of 12 per cent over 1950, and the electric utilities used 102 million tons as compared with 88 million tons in 1950. Industries other than steel and electric utilities consumed 115 million tons, the Class I railways taking 55 million, which is a decrease of approximately six million from their purchases in 1950. Eighty million tons of the 465 million consumed in the United States passed through the hands of retail dealers, the major portion going for the home heating of 14 million dwelling units in the United States.

*The Bureau of Mines has issued studies designed to demonstrate that the cost of producing synthetic gasoline would be comparable to the cost of its production from petroleum although industrial authorities, while not unanimous as to degree, feel the cost would be somewhat higher.

*Based on the average revenue per ton which would have been received for the coal replaced by the increase in fuel oil used over that consumed in 1928.

†Based on the average revenue per ton which would have been received for the coal tonnage equivalent to the increase in the consumption of natural gas over 1928.

A 13-year study of the fuel consumption of steam-electric plants shows an extreme sensitivity on the part of the utilities to changing price relationships. In plants burning coal and oil the consumption of coal held fairly firm up to a point of approximate price parity with oil, but dropped precipitately whenever the cost of coal rose even slightly above this point. The same trend held for coal and gas competition, except in those situations where gas was in limited supply.

In 1951 the United States petroleum industry more than met the greatest demand in history with its record output of all time. The American Petroleum Institute has announced that total demand for petroleum and its products reached a new all-time peak of 2,724 million barrels, an increase of almost 10 per cent over the former high established in 1950. The 1951 total demand, which includes exports, was 71 per cent above that of 1941—an indication of the mounting pressure under which the oil industry has been operating for the past decade.

Oil and Gas Transportation

The United States, with roughly one-third of the world's oil resources, accounted for 56 per cent of the globe's total production of crude oil, an increase of four per cent. This was a reversal of a trend, for the United States' percentage of world's production had been dropping steadily in recent years as other countries boosted their output. United States oil exports, which have been declining since 1944, jumped to 156 million barrels per year, an increase of 45 million barrels. The domestic demand increased to an estimated 2,568 million barrels, the ninth consecutive year that a new peak had been set. This represents an increase of eight per cent over 1950.

Production of natural-gas liquids increased also, reaching 204 million barrels, an increase of 20 million barrels over 1950. Gross production of natural gas in 1951 is estimated at 9,800 billion cubic feet, a record in itself and an increase of 1,321 billion cubic feet over the preceding year.

The prevalent means of transmitting crude oil in this country is by pipeline. Of all petroleum shipped during the five-year period 1945-1949, 74.6 per cent was handled by pipeline; 22.7 per cent by water, and 2.7 per cent by railway or highway. Only the large east coast refineries, which receive much of their crude supply from the Gulf coast, employ tankers for crude shipment. Railway tank cars and highway tank trucks carry only very minor amounts of crude oil.

As but another example of plans which eliminates the railway from the transportation of solid fuels is the proposal for moving coal for processing to industrial communities by hydraulic transport in pipelines. This is claimed to be far less costly than rail movement. The Pittsburgh Consolidation Coal Company states it has been proved feasible to move crushed or powdered coal in pipelines with water to about 50 per cent of the volume of the coal.

Several estimates of the cost of transporting coal hydraulically have been made. The most recent, now some five years old, was a proposal to convey 500 tons per hour, working eight hours a day, at 2.4 cents per ton-mile. If 24-hr.-a-day operation were maintained with the same traffic volume, the cost would be reduced to 1.8 cents per ton-mile.

The fact that energy evaporates has not been of major concern in the past because of the vast amount of resources available, but fuel must be recovered from the earth and must be transported from that point to points of consumption. If the time arrives that a ton of coal is required to recover a ton, or if a ton is required to transport a ton, or if the combination of the two consumes one ton in the process of placing one ton in the user's hands, our net gain will be zero. At present, sufficient coal and petroleum are available to permit selection in highest net recovery and the gross production rate is sufficiently high to allow transportation losses to be ignored, the only effect being that they add to the cost of fuel. Nevertheless, the economics of production and transportation will become gradually less favorable and, finally, costs will rise abruptly. Then we shall be approaching the point where investment of energy yields no energy dividend.

In a recent year, approximately 12 trillion horsepower-hours of coal, petroleum, and gas were produced and 0.5 trillion horsepower-hours were required to accomplish the production. Since this represents four per cent of the total horsepower hours produced, an overall efficiency of production of 96 per cent is indicated. The energy efficiency of natural-gas production is likely to decline with a gradual lowering of reservoir pressure. With both petroleum and coal the energy for production is already increasing.

The energy efficiency of transportation, of course, depends both on the type of transportation and upon the distance. The ocean-going tanker is the most efficient transport vehicle, with a transport capacity of 2,360 ton-miles per gallon of fuel consumed. The second in efficiency is the pipeline—which transports 1,090 ton-miles per gallon of fuel consumed—followed by the diesel-powered freight train with a record of 220 ton-miles, the diesel-driven motor truck of 80 ton-miles, the coal-fired steam railway freight train of 30 ton-miles, and last, the urban gasoline truck which moves but 20 ton-miles per gallon of fuel burned. The ocean-going tanker is more than one hundred times as efficient for the transportation of fuel as is the urban gasoline truck.

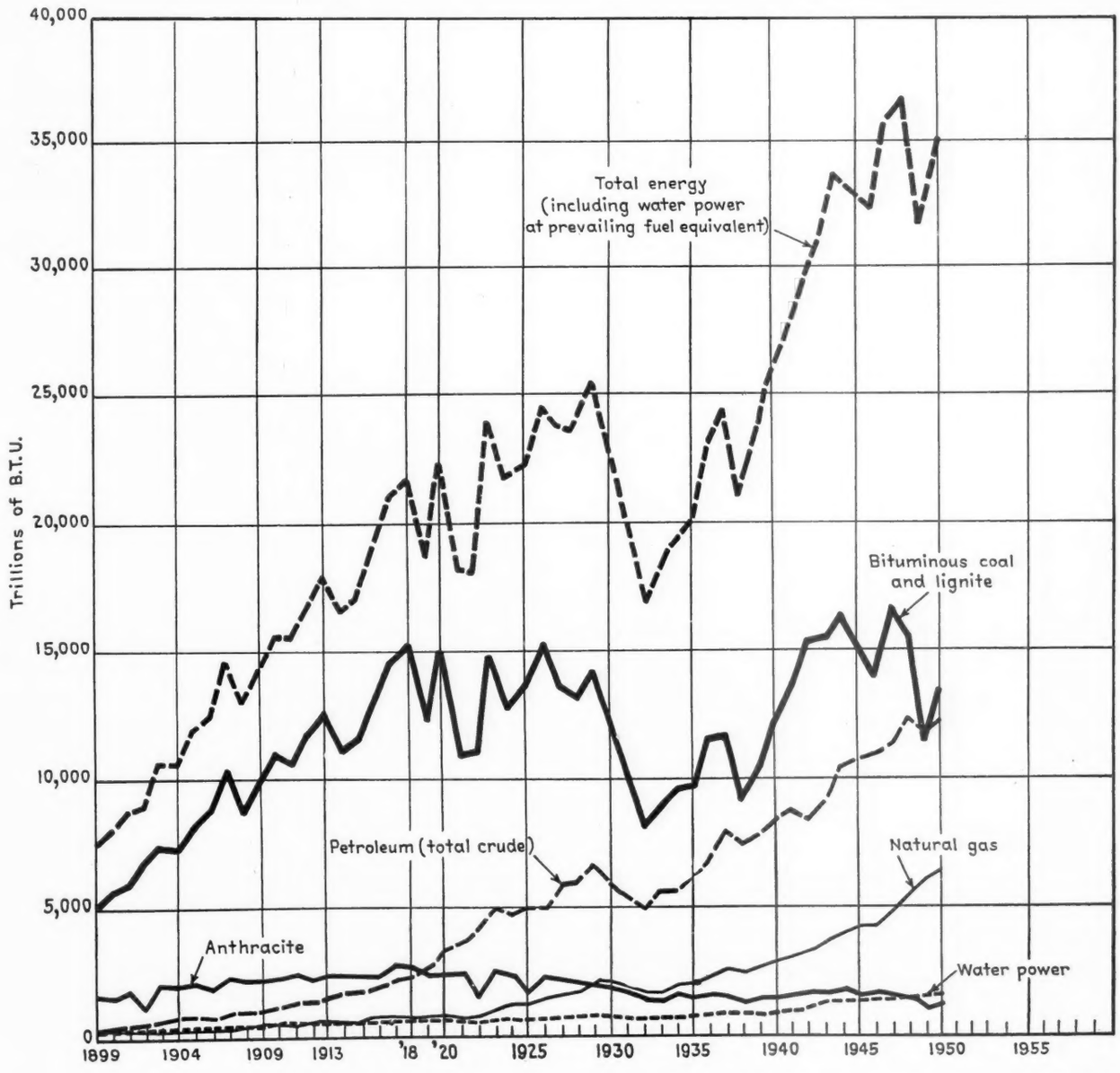
Electric Power Transmission

Transmission of electric power also requires considerable energy. Production efficiency of electric power is measured at the power station, but the losses are great before the current reaches the consuming electrical device. Under the average conditions the loss is about 20 per cent, which makes the transmission efficiency about 80 per cent.

Summarizing average transportation efficiencies (because of losses in transit) for various forms of energy in the United States, we find coal 97 per cent efficient; oil likewise 97 per cent; natural gas 93 per cent, and electric power 80 per cent. This partly explains why only coal and oil are transported for long distances, with gas and electric power utilized, relatively speaking, in the neighborhood of their production.

Present indications are that lower grades of coal will be utilized at or near their sources for conversion into liquid or gaseous form, while the best coal will be shipped predominantly by rail or water for use in industry. But it will be cleaned before shipment and transport agencies will not be called upon to carry tons of dirt around the country. This means the railways will necessarily find it to their best interests to reduce rates in order that they may transport over long distances at low rates rather than for short distances at high rates. Coal will not move by pipeline over long distances in the foreseeable future to steel mills, and steel mills will not be relocated near coal mines.

Is coal traffic, a billion-dollar-a-year revenue producer, on the way out?



Annual output of energy from mineral fuels and water power in the United States, 1899-1950.

"Top brass" participated in test run prior to full scale adoption of the B&O's human relations course. Seated from left to right are W. C. Baker, vice-president; H. F. Steinberger, manager, highway transportation; F. H. Einwaechter, chief engineer motive power and equipment; L. K. Burns, fuel agent; W. Morrow, engineer, maintenance of way Eastern region; H. O. McAbee, manager dining car and commissary department; E. S. Rupp, assistant to vice-president; R. W. Seniff, engineer tests; H. L. Denton, general superintendent police; C. W. Elste, superintendent safety; A. S. Hunt, chief engineer communications and signals; T. M. Jones, assistant to vice-president; Guy Wiles, superintendent motive power; and F. J. Goebel, vice-president personnel. Standing are M. H. Bradway, director training, and C. H. Holtzworth, manager personnel.

B&O Supervisory Development Program . . .

Starts with Human Relations to Expand Positive Leadership and the Urge to Do a Good Job

Experience to date indicates that definite improvements in both employee and public relations can be expected on the Baltimore & Ohio as a result of a Supervisory Development Program inaugurated recently. The B&O program is no "flash in the pan." It is a permanent long vision one which has the wholehearted and enthusiastic support of the road's top executives—indeed, they are participants.

Phase one of the program embraces a series of courses on human relations—courses in which it is planned to have more than 3,000 supervisory officers participate during the next two years. Human relations has been chosen as the primer because it is fundamental to the achievement of the program's stated objective—that the Baltimore & Ohio be operated to the best interests of the public, its employees and its stockholders. The 68-page textbook which goes to each "student" emphasizes, in the introduction, that a basic premise in this objective is the requirement that employees of the corporation not only be competent to do their own work, but that they apply themselves to it and that they cooperate with other employees to help the business operate efficiently. "Good human relations," as a key to this objective, it states, "means a good job with satisfaction in the doing of it."

President R. B. White saw the need for a supervisory development program. He placed the responsibility for its accomplishment in the hands of Frank J. Goebel, vice-president personnel. Mr. Goebel and C. H. Holtzworth, manager personnel, made it a preferred project of their department. The program described here is the culmination of nearly four years research and planning. After the kinks were ironed out, W. C. Baker, vice-president operation and maintenance, placed the program in effect in the operating department, appointing M. H. Bradway, former personnel assistant, to the

permanent and full-time post of director training to handle the details of this and other training programs.

When the present program was evolved, it was first "pre-sold" to management in a series of pilot courses given to top officers, and to a wide cross section of supervisory officers. With the positive appreciation and tacit approval of these groups, the program was inaugurated at full scale. There is nothing nebulous about it. It was begun with a certainty of purpose, a definite objective, and forethought that carries it through an extended period of years.

How the Plan Is Executed

Monday of each week one or more groups, each of 12 men, report to Carvel Hall Hotel at Annapolis, Md., for a five-day session. The selection of men is made by regional steering committees headed by the general managers, working closely with the personnel department. Each group includes men from all branches of the operating department. To encourage freedom of expression and to avoid inhibitions, care is taken that supervisors are not in the same group as their direct superiors. Groups now reporting to Annapolis are among the higher echelons of supervision. During the next 24 months, 3,000 supervisors, to the level of track foreman, will be included. Presently the course is restricted to the operating department but it will later be extended to the traffic, purchasing and accounting departments.

Annapolis was chosen because it is off-line. There the "students" can relax, free from everyday responsibilities of their jobs, uninterrupted by phone calls or routine. Central and western region locations will be chosen later.

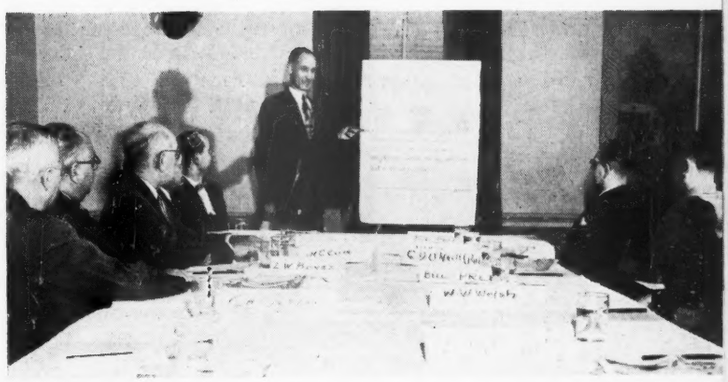
Three skilled assistant directors of training lead the courses in panel style, each assigned to a 12-man group. Monday starts with a general introduction. From then on, the panel-type discussions treat the following subjects relating directly to human relations:

Cause-result approach to behavior
Individual difference in ability and personality
Motivation and the job
Reactions to blocking of motives (frustration)
Attitudes
Interviewing
The individual and the group
Leadership
Foundations for good relations
A four step method for handling human relations problems

Sessions start at nine each morning with hourly "breaks." Conferees lunch together and discuss common problems. This also affords an opportunity for the supervisors to become better acquainted. The sessions close at 4:30. An evening assignment for "homework" requires about an hour and a half, after which the group is free for social activities.

The instructors guide the panels, doing a minimum share of the talking. The supervisors quickly become active participants in the discussion. By Thursday evening, the specific topics are completed. The final day is devoted to review, and the handling of specific human relations problems submitted by the conferees.

A *Railway Age* reporter who attended the Thursday and Friday sessions made it his purpose to seek out reactions of this group, and of individuals who had completed the course earlier. Summarizing, a good many old-time and so-called "hard-boiled" railroaders admit they reported with varying degrees of skepticism—mild to intense—but, to the man, they freely admit they be-



Part of the group which graduated on November 14 give close attention to M. H. Bradway, director training. The instructor leads the panels, but members are active participants in the discussions.

Members of the training staff who devote full time to the Supervisory Development Program are, left to right, M. H. Hall, M. H. Bradway (director training), R. D. Green and G. D. McManus.

Mr. Rupp, assistant to vice-president, who handles program details for the operating department, presents a certificate of completion of the training course to Roy Eves, superintendent, bolt and forge shop, Cumberland, Md., and mayor of Cumberland. Looking on is Director Training Bradway.

came "converts" after the first class. The consensus is that a great deal of constructive information is derived from the panels—practical information that will be useful to them when they return to their jobs. A deep appreciation of human relations is carried back to the job from Annapolis.

The personnel department carefully checks the progress of the course. Besides direct observation, a questionnaire is distributed to each "graduating" group (and they are issued "diplomas," too). No signature is required, or desired. It is felt that this way the replies will be uninhibited. The questions asked, to which the replies have been unanimously favorable, are as follows:

1. Do you believe such a program will pay dividends on the B&O? (Typical comment: "Yes! It should also be another incentive for employees to get into supervisory jobs. It will probably save some good employees who, without this training of their supervisors, might be lost to the railroad.")

2. A program such as this will be successful *only* if our top supervisors participate actively in its administration and improvement. Can we count on you? (Typical comment: "I have always attempted to follow the principles expounded here, but now my ideas and ideals have been strengthened and intensified. I can be counted on 100 per cent to further action accordingly.")

3. What do you think of the course content? (Typical comment: "Application of instructions contained therein will increase production—very educational.")

Perhaps the enthusiasm for the program is best typified by the urgent telephone plea of one top officer—who had recently completed the course himself—to Manager Personnel Holtzworth. He urged that the course be offered promptly to one of his important supervisors—a master of his work but not of his men. "Mr. Holtzworth," he said, "please let this man take your course soon—if he doesn't have the benefit of this human relations program, I'm afraid I might have to move him!"

Phase two of the Supervisory Development Program, as presently planned, will continue the same group through courses in one of the following areas: Job Knowledge, Job Responsibility and Skill in Instruction, or Skill in Improving Methods and Economics of the Railroad Industry.

Nationalization No Idle Threat!

. . . says E. Grosvenor Plowman

HERE ARE THE WORDS of a veteran buyer of transportation who has long been a leader among industrial traffic men—E. Grosvenor Plowman, vice-president—traffic of the United States Steel Company—selected and condensed from his challenging talk on December 4 to the Traffic Club of Minneapolis.

- ***"The socialists want railroads to be unprofitable. Bankruptcy enables them to offer government loans as the first long step toward nationalization.***
- ***"It's so easy for the government owner of a railroad to solve its financial problems by banning any important competition or by making up losses from taxes.***
- ***"Is there any reason to believe that a railroad, once socialized, will ever be allowed to return to the ranks of free enterprise?"***

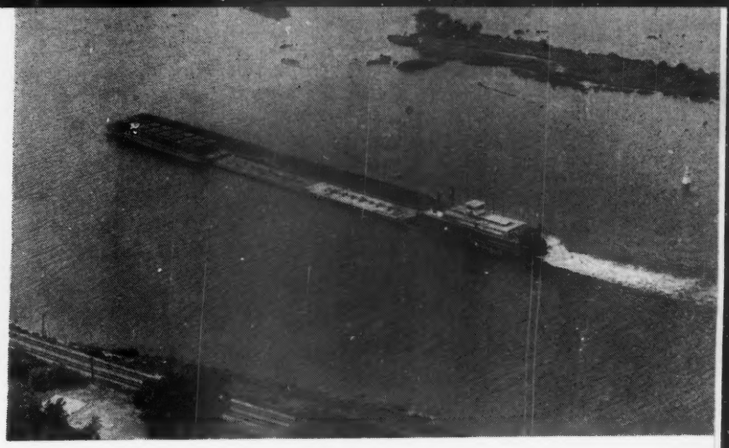
During World War I congestion on our American railroads reached indigestible proportions. Trucks were not then available in sufficient numbers nor were they efficient enough to take off the peak of the transportation pressure. Priorities and embargoes as devices to move essential war materials were badly handled. Two experiments that were made then are important for all to remember:

1. The railroads were nationalized for nearly four years.

2. The Federal Barge Line was given its start.

Federal control of American railroads was an expensive and eye-opening lesson in what not to do. Thirty-five years ago business management was not as complex, but that did not keep Uncle Sam from putting on a demonstration of money-losing railroad mismanagement for the period of federal control (1917 to 1920). Federal control of our railroads also proved once again that government management of business is ineffective and inefficient management. Whatever its name—government authority, public ownership, municipal utility, state or federal board—this inherent inefficiency of nationalized or socialistic enterprise is present. Socialism erodes and destroys private business.

"The basic lesson: Socialization of transportation emerges easily and inevitably out of some real or fancied need. Once established, it roots itself to its local economic scene.



It dies slow and hard. Is there any hope, for example, that the generation-old Federal Barge Lines will soon be terminated? . . . "

These two World War I examples show that transportation difficulties cause government to step in on the excuse that it is the only agency able to assume responsibility in an emergency. Too often this temporary seizure becomes permanent socialistic operation.

It's Happening Today

The Long Island is a current example of the same devouring technique. Today this road is being operated as a bankrupt by a court-appointed trustee. One proposal for its rehabilitation is to transfer it, temporarily, to ownership and operation by a so-called "authority"—in other words, to socialize it under state ownership. Is there any reason to believe that the Long Island, once socialized, will ever be allowed to return to the ranks of free enterprise?

The lessons of transportation history in Great Britain must not be forgotten either. In World War I British railroads, like our own, were seized and operated by their government. They were returned to private operation only to be forcibly merged by the government into four major systems each serving its own area. During World War II, British railroads again were seized and nationally operated. This time they never returned to their owners. Instead, in 1948, they and most other British transportation instrumentalities were nationalized.

A healthy transportation system, under free private enterprise, does not mean a static condition, and it cannot be achieved by limiting progress. New forms of transportation and new and substantial evolution of the older forms are the proper objectives of a sound and progressive transportation system.

The adjustment that lies ahead of our American railroads, to enable them to remain healthy private enterprises, cannot be foreseen in detail, but it can be forecast with the assurance of historical experience. Some of the problems and some of the fundamental adjustments are clear. Failure to reach solutions may well make our railroads easy victims of the socialists. Nationalization of American railroads is a real danger—not an idle threat. The greater danger is not that the socializers will be able to put over their views, but that business leaders in transportation and other lines of industry will not provide the leadership to prevent socialization by default.

There is good reason to be concerned over the trend towards frozen freight rates and rate relationships. Commodity rates are needed to move the great bulk of American traffic. Class rates have existed primarily to meet the need for a rate covering an occasional carload, or the need for a simple basis for computing l.c.l. and forwarder rates. Commodity rates have been and, in future, must be negotiated between carriers and shippers as *prices*. A commodity rate is the price that is charged for regular movements of freight between two points and which will move the traffic.

Class rates lack the flexibility of adjustment of commodity rates. The trend away from commodity rates and towards uniform class rates based upon uniform classification and uniform application of actual mileages is to be viewed with alarm. It must be prevented in the interest of preserving private transportation enterprises, as well as to maintain competition in commerce.

Another alarming trend is the desire of some socialistic planners to use freight rates as a means of controlling the amount and type of traffic available to each mode or kind of transportation. A recent suggestion, for example, was that freight rates should be made arbitrarily higher by railroad than by truck for short distances, say up to 200 miles, and be the reverse beyond. Such a proposal would freeze rate relations without regard to sound economic considerations that could be followed in determining the relative levels of rail and motor freight rates. This well-meaning but socialistic suggestion was for the avowed purpose of dividing traffic between rail and truck by means of these governmentally determined freight rate relations — thus eliminating the present healthy and vigorous competition based upon relative efficiency of rail and truck carriers for hauls of different commodities, different quantities, or different distances.

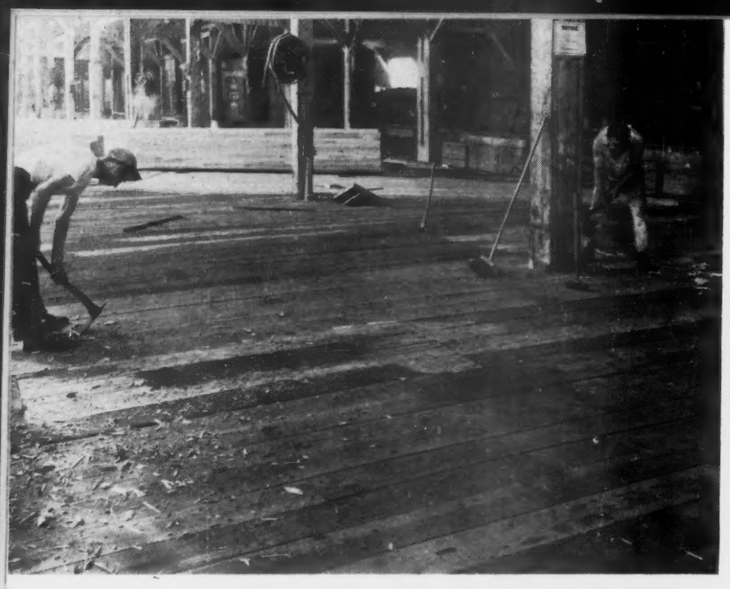
The rate committee procedures and the elaborate appeal machinery set-up are adequate and effective. They permit any and every shipper to propose changes in freight rates. They provide ample opportunity for consideration of adverse views or of suggestions for amendment. These procedures and appeal channels result in publication of new commodity rates that conform to the legal requirements of fairness and equity to all railroads and all shippers. What is needed, therefore, is less emphasis on elaborate class rates and frozen rate relations—and more emphasis on properly docketed, correctly progressed and promptly published commodity rates.

The Socialists' Target

The socialists want railroads to be unprofitable. Bankruptcy enables them to offer government loans as the first long step towards nationalization. The sure way to avoid the reality of socialism is for railroads to develop and retain financial health.

Railroads cannot be static and unchanging, any more than any other private enterprise. Financial health is a problem to be solved by constant progress. Steam locomotives must give way to diesels. Passenger trains may decrease or disappear, but the rails will be kept bright

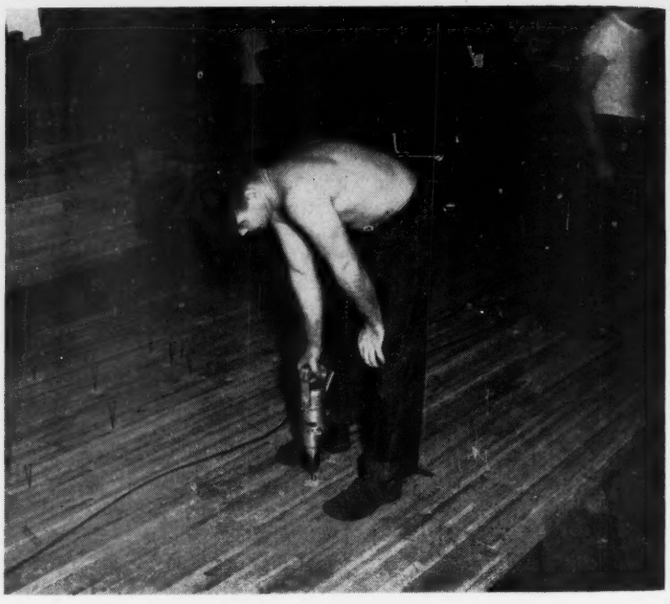
(*Continued on page* 49)



1 A preparatory step was application of new subflooring. Here it is being smoothed and leveled.

2 A hand-held power saw was used to cut the planking to the desired length.

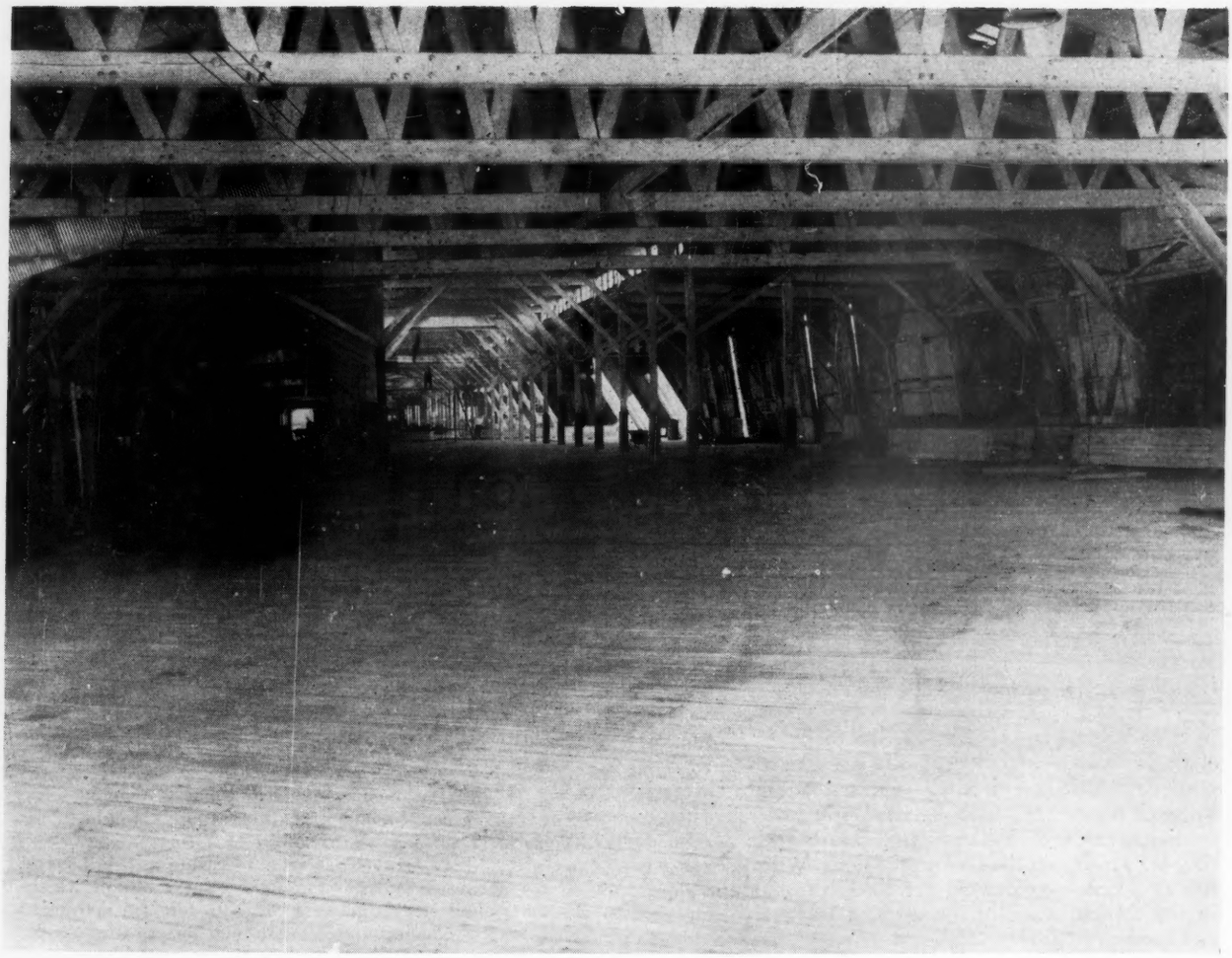
3 Flooring was fastened by screw spikes; holes bored by electric drill; spikes driven by pneumatic hammer.



4 Holes for the 5-in. screw spikes were countersunk with an electric tool.

5 Triangular spaces at the ends of the square-cut planks were filled with mastic.

6 A series of hatchways was installed in one side of each pier, inclined at an angle of 30 deg.



Inside Pier A, showing finished section of flooring. About 90,000 sq. ft. of the flooring was installed in this pier.

To Promote Traffic . . .

Reading Rehabilitates Tidewater Piers

Two old structures at Philadelphia get new-type flooring, improved openings in the side walls, and better fire protection and lighting

With the objective of promoting greater use of two old tidewater piers by shipping concerns, and so increasing traffic coming to the railroad, the Reading recently carried out extensive modernization work in Piers A and C, on the Delaware river at Port Richmond (Philadelphia).

A major part of the work was replacement of the worn flooring in each pier with a newly developed edge-grain laminated oak flooring (see accompanying description). In addition, roof hatches were installed along one side of each pier to facilitate handling cargo to and from vessels, and three movable steel crossover bridges were installed to span two depressed tracks along the center of each pier, replacing former wood construction. Better fire-protection and modern lighting were also installed.

The two piers are covered, with roof structures consisting of timber trusses supported by timber columns. The sidewalls had wood sliding doors, and, for handling merchandise in and out of the doors, cargo masts were

mounted on the roofs along both sides. The original flooring was 3-in. timber planking, with 2-in. planking being superimposed over it to provide driveways for street trucks along both sides of the depressed tracks.

Although the following description of the rehabilitation applies primarily to Pier A, the work on Pier C was essentially the same. The largest single element of the work was the new flooring, of which approximately 90,000 sq. ft. was applied in Pier A. The old flooring was removed and the frame bents and joists in the substructure were renewed as necessary. A subfloor of 3-in. planks was then placed.

Placement of Flooring

After the subflooring had been smoothed and leveled by adzing, the edge-grain laminated flooring was placed diagonally over it in pieces 12 in. wide and 2 in. thick, in lengths of 16 ft., 18 ft. and 20 ft. It was fastened to the subflooring by 5-in. screw spikes.

The laminated flooring, with its metal dowels, could not practicably be cut where pieces end at an angle along the walls, at the edges of the deck along the tracks, or at the roof columns. Instead, the ends were left square and the triangular spaces were filled with a mastic flooring material.

Hatchways Installed

Modernization of Pier A included installation of eight hatchways in the roof along its north side. The hatchways facilitate loading and unloading of vesesls by permitting cargo to be hoisted and lowered directly from and to the dock floor, using ships' tackle instead of the cargo masts on the roof of the dock. With these masts it was necessary to swing the loads through the doors in the vertical walls of the dock, a relatively slow and awkward procedure.

The new hatchways were formed in a novel manner, with the doors on an angle of 30 deg. from the vertical. With this arrangement, horizontal areas about 15 ft. by 18 ft. are available when the doors are open. These hatchways are framed with steel and are fitted with Wilson steel rolling doors. A similar installation was made on Pier C.

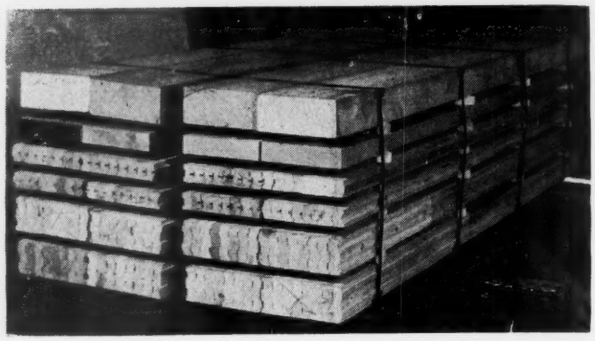
Driveway and Tailboard Area

At the inshore end of Pier A an L-shaped extension was cut back on the street side to provide a driveway and tailboard area for loading and unloading trucks. Openings at the tailboard space are enclosed by six Wilson 16-ft. manually operated overhead doors like those used in the hatchways. Other work done in the L-shaped extension included the construction of office space for the Waterman Steamship Company, which will be a large user of the rehabilitated piers.

Both piers now have transverse corrugated metal fire curtains at intervals under the roof, and oak fire-walls under the dock floor. Modern lighting was provided in both piers, the interiors were whitewashed and the exteriors painted.

The project was carried out under the general supervision of E. L. Gosnell, chief engineer of the Reading. Structural changes in the superstructure, including installation of the hatchways and the overhead doors, were made by the Hauser Construction Company, Philadelphia. The J. E. Brenneman Company, Philadelphia, installed the new flooring and crossover bridges and made necessary structural renewals.

HOW THE FLOORING IS MADE



Bundles of edge-grain planking and solid oak controls in the laboratory, preparatory to pressure treatment with creosote and other preservatives. Note tongue and groove construction of edge-grain planking. Metal drive dowels hold pieces together.

The edge-grain laminated flooring installed in two tidewater piers of the Reading is a recent development of the Graham Tie Dowel Service Company, Columbus, Ohio, which is owned jointly by D. B. Frampton & Co., Columbus, and the Pittsburgh Screw & Bolt Corp., Pittsburgh. This type of planking consists of relatively short lengths of tongued-and-grooved hardwood strips, fastened together by metal spiral drive dowels spaced at intervals of about 15 in. along the neutral axis of the plank. Since the joints of the component strips are staggered, the planking can be manufactured to any length. It is made in various widths up to 12 in.

The first step in the manufacturing process is to rip hardwood boards into strips, the width of which determines the thickness of the finished product. Strength-reducing defects are cut out of the strips which are then run through a molding machine which cuts a tongue on one face of the strip and a groove in the other. The finished strips, of varying lengths above 18 in., are turned on edge and continuously fed in to a special "sewing" machine in a ribbon the width of 6 or more strips. This machine bores the holes and inserts the dowels. The edge-grain plank comes out of the machine in a continuous piece that is then cut to specified lengths.

The Timber Engineering Company data has led to the recommendation of tentative allowable unit stresses for extreme fiber in bending between 2,300 and 3,000 psi., with a modulus of elasticity value of 1,200,000 psi. Dimensional stability tests on edge-grain planking and solid flat-sawn oak controls included a high and low humidity conditioning treatment and accelerated weathering tests. Swelling and strength measurements during the conditioning treatment were said to indicate that, in expansion across the grain, the dimensional change for doweled planking was approximately one-half the expansion of solid oak. The shrinkage during drying was said to be only 10 per cent of that with solid planking.

Even though a considerable amount of the new flooring has been produced to date for the Reading piers and other installations it is expected that it will be mid-1953 before increased production facilities, now under construction, will provide capacity to meet present orders and the expected demand.

In addition to its use in piers, freighthouses, and other buildings it is expected that the new flooring will have advantages for use in freight cars, especially those handling unusually heavy lading. At least one test installation has been made in freight cars and is reported to be giving satisfactory service.

Panel members agreed that education of freight station employees is complicated by union attitudes which reflect a need for educational efforts.

Objective of the Systems & Procedures Group . . .

To Help Managements Realize Maximum Effectiveness

GOALS OF THE SYSTEMS & PROCEDURES GROUP

"The way to help management realize its maximum effectiveness is by promoting an awareness of improved ways of doing things, to the end result of:

1. Doing them better (i.e., improve management control aspects) by:

(a) Supplying *sufficient* information in usable form;

(b) Furnishing *timely* information, enabling control; and

2. Doing them less expensively (i.e., cost reduction aspects)."

The objective of the Railway Systems and Procedures Association should be to assist railroad management in realizing maximum effectiveness." With this statement the organization's president, John F. Feagler, chief methods research officer of the Chesapeake & Ohio, keynoted a meeting of the group at Chicago's Palmer House on December 12.

Mr. Feagler then went on to list a number of ways in which the association and its members, by giving management better tools with which to work, could help the railroad industry to perform its job better while at the same time achieving better control of expenses. The two-day meeting of the group (December 11 and 12) was attended by 70-odd members and guests. Other features of the meeting were a description and demonstration of the Illinois Central's method of mechanically performing interline freight accounting work; an address on organization principles by J. C. Worthy, director of employee relations of Sears, Roebuck & Co.; and a

The Illinois Central and International Business Machines Corporation joined in demonstrating procedure for prorating interline freight revenue.

panel discussion on the "problems of the local freight agent."

Mr. Feagler displayed, in connection with his talk, a chart which he described as "an attempt to put in clear language the goals of this organization." This chart, he said, represented the thoughts of the officers and the executive committee. Since the organization belonged to everyone, he hoped that anyone would feel free to "shoot holes in the statement."

Mr. Feagler's chart included a list of "supporting subobjectives," all designed to promote "the soundest approaches to the processes of change, which any systems and procedural work implies, via organization, personnel and training." Included in the specific subobjectives were the following: encouraging more interdepartmental viewpoints and coordinated action on each railroad; more coordinated action among railroads; and providing a workable basis for interchange of new ideas and methods.

Integrated vs. Functional Organization

Mr. Worthy explained that Sears Roebuck favors the so-called "integrated" type of organization rather than the "functional" type, and allows store and plant managers almost complete autonomy in running their units. Local managers of Sears' stores carry in stock the items each manager decides will sell, and the store manager, aided by his departmental managers, decides at what price he will sell any article. How well each store is being run is determined by a profit and loss statement for the store (and for each department, also) and a merchandise condition report.

While the Sears management considers the integrated type of organization best, it does have stores organized along functional lines, i.e., with the departments selling hard goods, soft goods, etc., under the supervision of a staff assistant to the store manager, with individual departmental managers reporting to the staff man. The integrally organized stores do not have the staff assistants; each department is an independent unit, with its head reporting directly to the store manager.

One of the "hottest" subjects during the panel discussion, which was moderated by W. L. Ennis, assistant to vice-president of the Milwaukee, was how stop-off cars should be billed. Four agents (H. A. Freeman, Grand Trunk Western, Chicago; W. G. Miller, Pennsylvania, at Chicago; A. E. Ward, Milwaukee, at Chicago; and J. F. Kohout, of the Chicago & North Western at Proviso, Ill.), each on Mr. Ennis's panel, suggested that such cars be billed to the stop point, i.e., first stop point to be noted in the "to" section of the waybill as well as in the space marked "Stop this car at." If more than one stop is to be performed, that information should be shown in the body of the bill.

It was brought out that freight agents have been trying for years to get the Accounting Division of the Association of American Railroads to agree to this manner of handling billing for stop-off cars, the objective being to prevent such cars being carried beyond the stop-off point. When a question was raised as to how serious the problem is, E. E. Foulks, general superintendent transportation of the Rock Island, also a member of the panel, said his experience had been that it was serious with the western roads. It was his opinion that billing such cars as advocated by the freight agents would, in most cases, eliminate the possibility of the car's being hauled beyond the stop point and then hauled back to be partially unloaded.

Stop-Off Cars Responsible for Damage

There was discussion also to the effect that the stop-off car is responsible for a lot of damage, mainly because intermediate consignees refuse to break down or rebrace the load. A. R. Schroeder, assistant superintendent, loss and damage prevention, of the New York Central, said many intermediate consignees do not break down loads, mainly because they don't think of what may happen to freight left in the car. He said that he had been fairly successful in persuading receivers to perform this service, but that when they refused to do so, he held the car and wired the shipper, stating the facts. The shipper, cognizant of the ultimate consignee's impression upon receiving a car of damaged freight, usually put pressure on the intermediate consignee to break down or rebrace the load. This was usually successful, Mr. Schroeder said, although a few customers still do not "play ball."

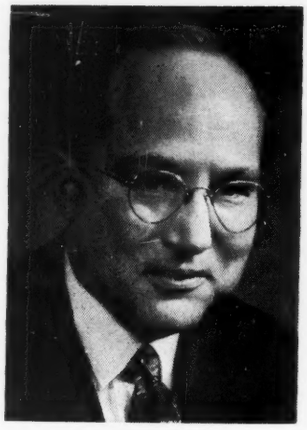
Other subjects discussed by the panel included the possibility of combining the interchange report and switching abstract, training of freighthouse employees, and use of a "picture" of the shipping order copy of the bill of lading as an interline l.c.l. freight waybill.

Interline Settlements

Edmund Mech, auditor of freight receipts of the IC, gave the audience a very brief history of the handling of interline settlements, followed by a resume of what his railroad has done to simplify such work. Mr. Mech noted that not until after 1927 did interline billing of freight become almost universal. Since that time the economical rendition of original interline accounts has been a major function of the freight audit offices, he continued. The IC has gone to the use of punched cards and tabulating equipment to make the division of interline revenue an economical and accurate process.

"At present, the majority of abstracts for 49 roads are prepared on a fully mechanized basis. Of the total of 11,549 abstracts for carload shipments, other than transited traffic, which were included in our October 1952 interline account, 4,407 abstracts were prepared on a fully mechanized basis covering 22,079 waybills. It is anticipated that in the next two years we will be able to include practically all regular and seasonal traffic movements, with the possible exception of transited traffic."

Barriger Goes to New Haven from Monon



John W. Barriger

John W. Barriger, 53-year-old president of the Chicago, Indianapolis & Louisville, will leave that company shortly after the first of the new year to become vice-president of the New York, New Haven & Hartford. The chairman of the Monon directorate, Arthur L. Leonard, in announcing Mr. Barriger's impending resignation, expressed the "appreciation of the board for the progress the Monon has made during the six and one-half years of Mr. Barriger's management."

A review of developments on the Monon during the Barriger regime was published in the February 4 *Railway Age*. Therein it was pointed out that the position of the Monon—relative to that of the railroad industry as a whole—had steadily improved since the road's reorganization was completed and the present management took over, on May 1, 1946. For instance, in freight ton-miles, the Monon's ratio to the total of the industry as a whole, went up more than 50 per cent in five years; and Monon operating revenues, unlike those of most other railroads, have steadily surpassed those of the wartime years.

Expenditures both for capital improvements and for a higher level of maintenance have been generous—having brought the property to relatively high physical standards, in relation to its traffic density. The average age of rolling stock and motive power has been reduced spectacularly. With total dieselization, average age of locomotives was reduced to 4 years. At the same time, average age of passenger and freight cars was brought down to less than 10 years.

After payment of income taxes and meeting interest and sinking fund obligations, the company has, for the past three years, earned the stipulated $1.25 per share (cumulative when earned) on its Class A stock, with a substantial balance remaining on the Class B stock. An initial dividend of $1.25 was paid on the Class A stock in January 1951, and was repeated in 1952.

John Barriger—since 1932 when he was engaged by Frederick H. Prince to prepare the so-called "Prince plan" of railroad consolidation—has been a leading exponent of the merging of the country's railways into a limited number of systems. As the president of a relatively small railroad, he has continuously advocated its consolidation with a connecting line, to create a larger railroad system. It has been his consistent contention that railroading is an industry—like the production of steel and automobiles—which can achieve its maximum economy, only when operated in units of considerable magnitude.

"Because of this conviction," Mr. Barriger told *Railway Age* last week, "I have, all along, been endeavoring to secure Monon affiliation with another railroad—an objective which has seemed to me to be equally important to my effort to improve the Monon's traffic position and the efficiency of its operation." He revealed that the Chicago & Eastern Illinois is the railroad with which he is advocating that the Monon be merged.

"The Monon makes two fingers of a hand and the C.&E.I. the other three fingers," he said. "I believe that gross revenues of a merged railroad tend considerably to exceed the gross revenues of the two railroads taken separately, while operating expenses of the merged company tend to be less than the sum of the operating expenses of the two railroads when separately operated."

As the February 4 article on Monon operations pointed out, Mr. Barriger has been highly successful in winning the support of shippers and of influential citizens in towns the railroad serves. He has succeeded to a marked degree, also, in getting popular identification of the Monon as "the Hoosier line"—that is, in getting the public's acceptance of the parallelism between their allegiance to their part of the country and the fact that the railroad, too, is exclusively a Hoosier railroad.

No Stranger to New England

Significantly, when Mr. Barriger embarked upon his program of identifying the Monon with its communities, he observed that there were probably only two or three places in the country where popular sentiment for a locality is as strong as it is in Indiana—and one of these places was New England. Mr. Barriger is widely acquainted in New England and has been a frequent visitor to the area in recent years. He is a graduate of the Massachusetts Institute of Technology and three of his four children have completed their education in New England. During the thirties, when he headed the Railroad division of the Reconstruction Finance Corporation, the New Haven was one of the railroads the operations of which were minutely studied by that division. As a consequence, Mr. Barriger goes to the New Haven with an intimate knowledge of the property itself and an equally intimate acquaintance with, and high regard for, the territory the railroad serves. It is probably significant also—in view of the great importance of passenger traffic to the New Haven—that Mr. Barriger has long been on the side of the optimists regarding the possibilities of passenger traffic development.

As vice-president of the New Haven, Mr. Barriger will have no departmental assignment and will report directly to President Frederic C. Dumaine, Jr.

NO IDLE THREAT!

(*Continued from page* 43)

and shiny by increased freight-train movements. Yards must be relocated, rebuilt, and operated so as to provide better freight service. Railroads cannot be forced into a service pattern justified solely by past practice and habit. On the other hand, if allowed to undertake this constant process of economic and financial liquidation and reinvestment, of abandonment of one activity in order to facilitate expansion of another transportation service, railroads will remain healthy private enterprises.

NEWS OF THE RAILROAD WORLD

(*Continued from page* 16)

The order will become effective January 1 unless otherwise ordered by the commission. It provides that interested parties may make presentations with respect to the new rules within 45 days from the order's date which was November 18. It was not made public until December 10.

The present rules, which will be superseded, were prescribed by a commission order dated November 11, 1935. Their basic pattern will not be changed by the new rules; but the latter do embody major changes, from the permissive to the positive, in terms and instructions. Alternatives offered by the present rules have been eliminated so far as possible; and many instructions have been made more detailed and thus more definite. Also, the rules have been "modernized" to conform the account numbers and titles with the current uniform system of accounts.

Parties Agree on Procedure In "Improvement" Case

Negotiations and hearings on the demand of railroad labor organizations for an "improvement-factor" wage increase have resulted in agreement on procedures to be followed by the referee in the case.

The referee, appointed by President Truman, is Paul N. Guthrie. (*Railway Age*, December 15, page 14.) Management and labor representatives have agreed that he should decide first whether the government's stabilization policy now permits "improvement-factor" increases. If he answers this question in the affirmative, he will proceed to hold hearings (in New York on January 5, 1953) on the question of how much of an "improvement-factor" increase should be allowed.

It was also agreed that Referee Guthrie's decision would be final and binding.

Johnson "Editorial" Barred From Gateway-Case Record

The Interstate Commerce Commission has denied a petition whereby the Union Pacific sought to put into the record of the Ogden gateway case a statement by Senator Johnson, Democrat of Colorado.

The case is the No. 30297 proceeding which involves the Denver & Rio Grande Western's undertaking to have the commission require the U.P. to participate in joint through rates via the Ogden, Utah, gateway. Senator Johnson's statement was a pronouncement headed "editorial" which appeared in the October 28 issue of the Wichita (Kan.) Beacon. It was signed by the senator and it expressed views in favor of the Rio Grande position in the case. (*Railway Age*, November 24, page 12.)

The "editorial," the commission's order said, "is not competent evidence nor relevant to the issues . . . and may not be considered in disposition of the matters and things involved."

A NEW PROGRAM of service pins for long-time employees was inaugurated by the Western Maryland on December 11, with a special luncheon for 17 men who have worked for the company continuously for 50 or more years. Dean of WM employees, and one of the oldest active employees in the entire railroad industry, is Emery H. Miller (left, above), district agent at York, Pa. Mr. Miller, who has spent 60 of his 86 years with the WM, received the first pin from W. Arthur Grotz, president of the company.

ACL and SAL Start New Fast Perishable Service

The Atlantic Coast Line and the Seaboard Air Line have established, in collaboration with the Richmond, Fredericksburg & Potomac, the Pennsylvania and the Baltimore & Ohio, a new fast freight service for perishable traffic originating in Florida and destined to New York and intermediate eastern markets. The service provides third-morning market arrivals at Washington, Philadelphia, Newark, N.J., Jersey City, and New York.

Somewhat similar service was operated during a portion of the 1947-1948 shipping season, but the new schedules, which became effective December 15, give shippers about three hours additional loading time at points of origin. The third-morning delivery service was inaugurated on an experimental basis and will be continued only if patronage permits. Present fourth-morning schedules from Florida to eastern markets have been continued.

Volume of Truck Traffic Off 0.6% in Third Quarter

Freight tonnage moved by Class I intercity truckers in the third quarter of this year was 0.6 per cent below the volume of the comparable 1951 period, according to figures compiled by American Trucking Associations.

The A.T.A. report was based on returns from 1,392 intercity truckers which carried 47.2 million tons in the third quarter. The A.T.A. index, based on 1941 as 100, was 215.

Allegheny Board Forecasts Decreased Carloadings

At a meeting of the Executive and Railroad Contact Committees of the Allegheny Regional Advisory Board, held at Pittsburgh on December 11, the board predicted that carloadings in the first quarter of 1953 would be 2.5 per cent below those of the corresponding period in 1952. Contributing substantially to this decrease will be a decline of 6.2 per cent in coal and coke loadings. Other decreases expected are in lumber and forest products; cement; paper, paperboard and prepared roofing; railway cars and parts, and furniture and household equipment.

The board's Iron and Steel Committee predicted an increase of 3.9 per

NEW PRESIDENTS FOR THE NEW YEAR

***Detroit, Toledo & Ironton*—The board of directors has elected David E. Smucker as president, to succeed Stanley P. Ruddiman, who will retire as president December 31, but will continue as a member of the board. Mr. Smucker recently returned to the Pennsylvania as assistant chief engineer at Philadelphia, after six months' service as director of the Railroad Transport Division of the Defense Transport Administration at Washington, D. C. A photograph of Mr. Smucker appears on page 8.**

***Chicago & North Western System*—Directors of the Chicago & North Western and of the Chicago, St. Paul, Minneapolis & Omaha have elected Paul E. Feucht as a member of the board and as president of both roads, succeeding R. L. Williams, who will retire December 31. Mr. Williams has been elected chairman of the board of the two roads. Mr. Feucht had worked for the Pennsylvania for 27 years before going to the C&NW 16 months ago as executive vice-president.**

cent for shipments of these products. Other commodity committees forecasting increases in carloadings were gravel, sand and stone; petroleum and petroleum products; electrical goods; glass bottles and containers, and vehicle parts.

Plans for the 1953 Perfect Shipping Campaign were discussed and consideration was given to the possibility of promoting a program similar to the "Better Shipping and Handling Exposition" put on by shippers and carriers at Syracuse, N.Y., in 1952.

Seatrain, Advised by Court, Takes Complaint to I.C.C.

Seatrain Lines has asked the Interstate Commerce Commission to issue "declaratory orders" which will remove "uncertainties" arising from an October 24 decision in the federal district court for New Jersey.

The court proceeding was one in which Seatrain sought treble damages from the Association of American Railroads and four major railroads—the Pennsylvania, Southern, Atlantic Coast Line and Louisville & Nashville. Seatrain also asked for injunctive relief "with respect to the use of cars for movement of freight via Seatrain."

A majority of the freight cars in the so-called national car pool belong to railroads which do not have through route arrangements with Seatrain. The carrier asked that railroads be required to permit use of their cars in Seatrain service.

The court dismissed Seatrain's case. It ruled that the I.C.C. has jurisdiction to hear the complaint, both as to damages and car relief. But Seatrain claimed it found "no specific authority" in the Interstate Commerce Act, by which the I.C.C. could grant the relief sought in the court.

This led to the present petition, filed with the I.C.C. December 12. The commission was asked to clear up the "uncertainty" about jurisdiction. An order to accomplish this could be issued under provisions of the Administrative Procedures Act.

Seatrain said it went to the district court for relief because the I.C.C. in earlier proceedings found it had limited jurisdiction with respect to the use of freight cars by Seatrain. The court proceeding was aimed at removing "all restrictions with respect to the use of all cars over which the I.C.C. lacked authority."

At the same time, Seatrain sought treble damages under the antitrust laws because the railroads "have utilized administrative and court procedures, in bad faith and without probable cause . . . not for the purpose of obtaining settlement of issues but with the intended effect of . . preventing Seatrain's growth, development and expansion . . ."

The district court said the I.C.C.'s jurisdiction to entertain these complaints arises from the "spirit of the decision of the Supreme Court in its interpretation of the National Transportation Policy." Seatrain would have the I.C.C. interpret this statement. Meanwhile, the water line also has appealed the district court's October 24 decision to the Supreme Court.

Earlier this year, eleven railroads requested the I.C.C. to settle once and for all the matter of how Seatrain fits into the national transportation picture. They asked the commission for a "definite and overall solution" to the many problems involved. That case, docketed as No. 31014, is still pending before the commission (*Railway Age*, April 14, page 14).

The December 12 petition by Seatrain undertook to answer this railroad request. It said the complaint was so drawn as to leave most problems unsolved. Seatrain charged the railroad plea "appears to be wholly and solely to restrain the competition of Seatrain by limiting its growth and development . . ."

ORGANIZATIONS

Transport Sessions Planned For A.S.A.-A.E.A. Meetings

Discussions of "Practical Uses of Transportation Flow Data" and "Prospective Developments in Federal Regulation and Coordination of Transportation" will be features of the annual meetings of the American Statistical Association and American Economic Association, which will be held December 27-30 at Chicago.

The former discussion will be held December 27 at a joint A.S.A.-A.E.A. session of which the chairman will be E. Grosvenor Plowman, vice-president (traffic), United States Steel Corporation. Papers will be presented by R. Tynes Smith, III, of the Interstate Commerce Commission's staff; E. S. Root, chief of research, Erie; and D. W. Steiner of the Department of Defense. Participants in the discussion will include W. Edwards Deming of the Bureau of the Budget; C. Austin Sutherland of the National Tank Truck Carriers; and Ray S. Kelley, Jr., of the National Planning Association's Committee of New England.

Kent T. Healy of Yale University will be chairman of the session set up to discuss regulatory and coordination developments. This will be an A.E.A. session on December 28. Papers will be presented by Senator Johnson, Democrat of Colorado, who was chairman of the Senate committee on interstate and foreign commerce in the past Congress; and Jack Garrett Scott, under secretary of commerce for transportation. Participants in this discussion will include John H. Frederick of the University of Maryland; and Charles S. Morgan of the I.C.C. staff.

"Distribution and Utilization of Natural Gas" will be the subject of another A.E.A. session. It will be held December 29 under the chairmanship of Eli W. Clemens of the University of Maryland.

A.S.M.E. Railroad Division Installs New Officers

At the annual meeting of the American Society of Mechanical Engineers, Railroad Division, in New York, December 2 to 4, the following were elected members of the Executive Committee for the ensuing year: G. W. Bohannon, general manager, Pullman Company, chairman; E. M. Van Winkle, vice-president, American Steel Foundries; C. K. Steins, mechanical engineer, Pennsylvania; J. S. Newton, vice-president, engineering, Baldwin-Lima-Hamilton Corporation; A. G. Hoppe, mechanical engineer, Chicago, Milwaukee, St. Paul & Pacific, and E. L. Woodward, western mechanical editor, *Railway Age*, secretary.

General committee members are: F. L. Murphy, assistant vice-president, sales, Pullman-Standard Car Manufacturing Company; B. W. Taylor, sales engineer, General Steel Castings Corporation, (both reelected); F. K. Mitchell, manager of equipment, New York Central, and W. M. Keller, director of research, A.A.R. Mechanical Division. Mr. Van Winkle was appointed chairman of the Program Committee; M. M. Cooledge, eastern sales representative, Buckeye Steel Castings Company, chairman of the Membership Committee; and T. P. Perkinson, manager, Transportation Engineering Division, General Electric Company, continued as chairman of the Committee on Progress in Railway Mechanical Engineering.

At its recent meeting in New Orleans the **Eastern Association of Car Service Officers** elected the following officers: President — J. L. Barngrove, Jr., superintendent of freight transportation, New York, New Haven & Hartford; first vice-president —G. F. Dunathan, car accountant, Erie; second vice-president — C. C. Robinson, superintendent of car service, Chicago, Indianapolis & Louisville; and secretary-treasurer — H. C. Rochester, general car accountant, Canadian National.

Railroad Enthusiasts, Inc., New York division, will hold its next meeting on December 23, at 8 p.m. Clarence LaFond, of the New York Central, will talk on "Operation Whistle Stop," explaining the railroads' part in a presidential campaign. Also, two movies from the Southern Pacific will be shown—"Snow on the Run" and "Tehachapi Earthquake Clean-Up."

The 1953 meeting of the **Treasury Division, Association of American Railroads,** will be held at Grand Hotel, Mackinac Island, Mich., from

Wednesday, September 16, through Saturday, September 19. This decision of the division's Advisory Committee was announced in a December 5 circular from the division's secretary, R. E. Keefer. September 16 will be devoted to the usual "open-house" meeting of the Advisory Committee, while the division's annual-meeting sessions will be held on the three following days. The committee on arrangements is headed by F. H. Jeffrey, treasurer of the Chicago, Milwaukee, St. Paul & Pacific. A. M. Waldron, treasurer of the New York, Chicago & St. Louis, is chairman of the division.

EQUIPMENT AND SUPPLIES

Directors of the **Missouri-Illinois** have approved expenditures totaling $1,153,214 for improvements in 1953, including 100 70-ton hopper cars to be built at the De Soto, Mo., shops of the parent Missouri Pacific. The approved expenditures also cover purchase of two 1,500-hp. diesel units and eight miles of new 90-lb. rail.

FREIGHT CARS

The **St. Louis-San Francisco** has ordered 100 50-ton pulpwood cars from its own shops for delivery during the second quarter of 1953. Approximate cost of the cars will be $780,000.

LOCOMOTIVES

The **Illinois Terminal** has ordered four 1,500-hp. diesel units from the Electro-Motive Division of General Motors for delivery in April 1953. When delivered, they will bring the IT's diesel ownership to 23 units. All other IT locomotives are electric.

SIGNALING

The American Locomotive Company has ordered equipment from the General Railway Signal Company for installation of six sets of intermittent-inductive train control on **Baltimore & Ohio** diesel freight locomotives.

The **Chicago, Burlington & Quincy** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company, material to install a traffic control system between Highland, Ill., and West Hinsdale, 2 miles. In addition to the UR type control machine, the order includes line code and carrier equipment, styles H-2 searchlight signals, M-3 electric switch machines, SL-6A electric switch locks, relays, rectifiers and switch circuit controllers. Field installation will be handled by railroad forces.

The **New York Central** has ordered equipment from the General Railway Signal Company for installation of a coded interlocking at Clark avenue, Cleveland.

The **Norfolk & Western** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company, material to install C.T.C. on approximately 36 miles of single track between Waynesboro, Va., and Shenandoah. The style C control machine will be installed at Roanoke, Va., division headquarters. In addition to code and carrier equipment, the order includes position-light signals, styles M-23A dual-control electric switch machines, SL-21A electric switch locks, relays, rectifiers, transformers and housings. Field installation will be handled by railroad forces.

The **Southern** has ordered equipment from the General Railway Signal Company for the installation of a relay interlocking at Fair street, Atlanta, Ga.

The **Union Pacific** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company material to install new automatic signaling between Hinkle, Ore., and The Dalles, 100 miles. The order includes styles H-2 searchlight and P-5 color light signals, MC-1 motor car indicators, relays, rectifiers and housings. Field installation will be handled by railroad forces.

COMMUNICATIONS

B&M to Install 2-Way Radio In Greater Boston Yards

Two-way radio communication equipment will be installed in the Greater Boston freight and passenger yards of the Boston & Maine. Purchase of equipment has been authorized and installation is expected to be completed next spring. Under the plan, 11 diesel yard locomotives will carry two-way radios and be in constant communication with the North Station office of the stationmaster and with six central stations at different points in the yards.

Supplementing radio installations will be a weatherproof combination talk-back and paging speaker system installed on posts throughout the yards whereby supervisory personnel in offices and towers can talk at all times with yardmen in various parts of the yards.

F. W. Rourke, vice-president—operations, stressed the importance of the new installation in speeding switching of carload freight to and from industries in the Greater Boston area and in making up and separating main line freight trains arriving in, and departing from, Boston.

Locomotives will be under complete radio supervision while in yards and on waterfront facilities. Locomotives working in passenger yards will operate on a different frequency than those working in freight yards, permitting two separate conversations to be handled simultaneously. Each locomotive will have both frequencies installed and by operation of a switch an engineman can change the frequency from that for passenger operations to that for freight service.

SUPPLY TRADE

H. W. Wolff, vice-president of purchases of the **Westinghouse Air Brake Company,** has retired; **R. M. Hornbeck,** general purchasing agent, has succeeded Mr. Wolff, with the title of director of purchases.

H. W. Wolff

Mr. Wolff joined Westinghouse in 1925 when the Hall Signal Company, of which he was a director and general manager, was purchased by the Union Switch & Signal Division of Westinghouse Air Brake. He was appointed director of purchases in 1939, and elected vice-president of purchases in 1946. Mr. Hornbeck joined Westinghouse in 1941 after 16 years with public utilities. He was appointed general purchasing agent in 1946.

R. M. Hornbeck

Howard W. Keyser (left), formerly assistant manager of the Philadelphia office of the Safety Car Heating & Lighting Co., has been appointed manager of the San Francisco office, and H. K. Williams (right), formerly sales representative at Chicago, has been appointed sales representative at Philadelphia. W. P. Shotwell, formerly manager of the San Francisco office, is now with the New Haven, Conn., plant.

Robert J. Ritchey has been appointed assistant general sales manager of the **Townsend Company,** New Brighton, Pa. Mr. Ritchey has been director of the market development division of the **United States Steel Company** since January 1951.

Edmund C. Horman has been appointed regional sales manager for the **Baker-Raulang Company** in the New York metropolitan area.

The **Columbia Machinery & Engineering Corp.** has acquired all assets and manufacturing rights of the **Bridgeport Safety Emery Wheel Company,** Bridgeport, Conn., and the **Diamond Machine Company,** Stratford, Conn.

W. W. Greenway has been elected vice-president of the **Pressed Steel Car Company,** with headquarters at Los Angeles. He formerly was general manager of the Chicago steel tank division at Chicago.

Paul T. Warner, librarian of the **Baldwin-Lima-Hamilton Corporation** at Eddystone, Pa., retired recently, after 50 years of service with the company and its predecessors. As advertising manager of the Baldwin Locomotive Works, Mr. Warner was responsible for the first issue of its publication Baldwin Locomotives in July 1922. He continued as its editor until January 1933 and has written numerous articles on steam locomotives which were published in the magazine.

OBITUARY

Dr. Harvey N. Davis, who retired as president of the Stevens Institute of Technology in 1951, died on December 3. Dr. Davis, who was president of the American Society of Mechanical Engineers in 1938, became head of the institute in 1928. As a mechanical engineer, he had previously held positions with the General Electric Company, the Franklin Railway Supply Company, and the Air Reduction Company.

James L. Young, 68, vice-president of the Schaefer Equipment Company, died at his home in Warren, Ohio, on December 5.

Kendall B. Rowell, 52, chief engineer of the American Locomotive Company, died on December 12. Mr. Rowell joined the engineering department of American Locomotive in October 1940. In 1945, he was transferred to Schenectady as liaison engineer between sales and engineering departments. He was appointed commercial engineer in July 1950, and in March 1952 was named executive engineer.

CAR SERVICE

Fourth Revised I.C.C. Service Order No. 95 supplanted Third Revised Service Order No. 95 at 12:01 a.m. December 13. The order is that which has made D. W. Benton, assistant to the chairman, Car Service Division, Association of American Railroads, the I.C.C agent with respect to refrigerator cars. The revised order, which will expire April 30, 1953, unless otherwise modified, gives Mr. Benton authority over the distribution of reefers. Under the previous order, his assignment was to keep the commission informed as to the reefer situation.

The Hyatt Bearings division of General Motors Corporation has established a railroad sales division at Harrison, N. J. F. U. Naughton, Jr. (left), formerly manager of eastern sales, has been appointed manager of railroad sales, reporting to J. R. Gilmartin, general sales manager, and E. P. O'Neill (right), formerly a sales engineer with the eastern sales division, has been appointed manager of the eastern division.

CONSTRUCTION

SAL to Build $7-Million Yard at Hamlet, N. C.

Construction is expected to start within the next 60 days on a $7,000,000 hump-type freight classification yard for the Seaboard Air Line at Hamlet, N.C. Bids for grading will be asked in January and that portion of the project is expected to be completed in November. Track laying will begin in June and take about 14 months to complete. Construction of yard buildings is scheduled to begin next December. Work on the entire project is expected to extend through 1954.

A diesel locomotive repair shop also will be constructed adjacent to the new yard at an approximate cost of $1,500,000.

The new yard will have receiving,

classification and departure units. The classification yard will have automatic car retarders and automatic switching facilities. Trains will be able to enter it from any direction without disturbing classification work. Construction of this yard will involve about 1,000,000 cu. yd. of grading, and the laying of 66 miles of track. The hump classification yard will have 58 tracks varying in car capacity from 12 to 60 cars each. It will be designed for expansion to 80 tracks.

A flat classification yard for assembling local trains will have 10 tracks with car capacities ranging from 135 to 165 cars each. The 10 tracks in the departure yard will have capacities of from 110 to 150 cars each. In addition, there will be two 50-car cleaning tracks, two 20-car light repair tracks, two 20-car caboose tracks, a 20-car explosives track and a 10-car stock pen track.

Bevier & Southern.—This road has applied to the I.C.C. for authority to construct and operate a 4.79-mile line in the vicinity of Ardmore, Mo. The line would serve the so-called Darksville coal field, which has a reserve of coal estimated at 2,500,000 tons. The B&S connects with the Chicago, Burlington & Quincy at Bevier, Mo., and the Burlington would furnish labor and equipment for constructing the new line. The Bevier Coal Company, which plans to develop the Darksville field, would advance funds to the B&S to pay construction costs.

California, Arizona & Santa Fe (Atchison, Topeka & Santa Fe).—These roads have filed an application with the I.C.C. seeking approval of a line relocation project between Boron, Calif., and Sanborn. Existing trackage, approximately 28.5 miles, would be abandoned to make way for expansion of the Edwards Air Force base. The government would pay for construction of the substitute line, which would be built by the Santa Fe at a cost of approximately $5,500,000. Upon completion, the new line would be turned over to the railroads in exchange for the present line. The new Boron-Sanborn segment would be approximately 25.7 miles.

Harris County-Houston Ship Channel Navigation District (Houston, Tex.).—The navigation district has asked the I.C.C. to approve construction of three new rail segments by the Port Terminal Railroad Association. The new trackage, totaling about 4.4 miles, would serve various industries in the area. The terminal association already maintains and operates about 97.7 miles of track on both sides of the Houston ship channel. Railroads in the Houston area operate over PTRA trackage, and they joined in the construction application filed with the I.C.C.

Mississippi & Skuna Valley.—This railroad, which connects Bruce, Miss., with the Illinois Central at Bruce Junction, is being rerouted because about half its present trackage will be flooded as a result of development of the Grenada dam and reservoir area by the federal government. Work on the new track, which will be 9.7 miles long, is scheduled for completion by December 1953. Initial work involves moving 400,000 cu. yd. of earth, contract for which has been awarded to the Carruth Contracting Company, Baton Rouge, La.

A federal government recommendation that the M&SV be abandoned was withdrawn because of opposition by residents and businesses in the area served. The railroad, presently 22 miles long, will operate over the old route until the new one is completed.

Pittsburgh, Ohio Valley & Cincinnati (Pennsylvania).—The I.C.C. has authorized this road to construct an 8-mile segment in Belmont county, Ohio, to serve a proposed new coal mine. Estimated cost of the rail line is $3,359,045. The Pennsylvania, which will operate the new segment, will advance funds for the construction. Coal deposits at the end of the line are estimated at 30,000,000 tons.

FINANCIAL

Carolina, Clinchfield & Ohio.—*Bond Extension.*—This road has asked the I.C.C. for authority to extend to September 1, 1965, the maturity date of its first mortgage 5 per cent bonds. The bonds, due December 15, 1952, are outstanding in the amount of $3,000,000.

Central of New Jersey—Central of Pennsylvania.—*Consolidation of Operations.*—Division 4 of the I.C.C. has authorized the CofP to abandon operation of its entire system, consisting of approximately 118.9 miles of main line and 104 miles of branch line in Pennsylvania. Operation of the system will revert to the parent company, CNJ, which operated it prior to 1946. Elimination of the separate operating company is expected to result in tax savings of $275,000 a year. (*Railway Age*, August 25, page 18).

It was in anticipation of substantial tax savings that the separate CofP operation was set up in 1946. Court decisions since that time have ruled out hope of such savings.

As part of this consolidation of operations under CNJ, the I.C.C. authorized CNJ to lease a 4.4-mile segment of rail line owned by CofP in Northampton County, Pa. This segment, known as the Easton & Western branch, is an important feeder line.

Kansas City Southern. — *Stock Split.*—Stockholders of this road will vote next January 30 on a proposed two-for-one split of the company's common and preferred stocks (*Railway Age*, November 24, page 65).

Missouri-Kansas-Texas of Texas. —*New Director.*—W. S. Dorset, president of Mrs. Tucker's Foods, Inc., has been elected to this road's board of directors.

St. Louis-San Francisco. — *New Director.*—C. Powell Whitehead, president of the General Steel Castings Corporation, has been elected a member of this road's board of directors to succeed the late Joseph R. Matthews.

Union of Pittsburgh. — *Acquisition.*—Division 4 of the I.C.C. has authorized this road to purchase, for $4,900,000, the North Bessemer Yard and other nearby trackage from the Bessemer & Lake Erie. Both roads are controlled by United States Steel Corporation, and Union has operated these B&LE facilities under a lease arrangement since 1906. The BL&E trackage consists of approximately 8.3 miles of main line, together with about 80.3 miles of sidings, yard tracks and other appurtenances. It is located in Allegheny County, Pa. Union will deliver to B&LE a demand promissory note in the amount of the purchase price. Issuance of this note, with interest at 3¼ per cent, has also been approved by the I.C.C.

Effect of this transaction will be to eliminate a long-term lease and make the existing lessee the owner of the property. Union also expects some income tax benefits (*Railway Age*, December 1, page 105).

Western Pacific.—*New Director.*—Stayman L. Reed, of New York, has been elected to succeed J. W. Mailliard, Jr., who has resigned.

New Securities

Application has been filed with the I.C.C. by:

NEW YORK, NEW HAVEN & HARTFORD.—To issue and sell $14,000,000 of Harlem River Division first mortgage bonds, series A. Proceeds from sale of the bonds would be used to retire Harlem River-Port Chester first mortgage 4 per cent gold bonds. These will mature May 1, 1954. The amount outstanding totals $14,427,000. The New Haven said it wants to sell the new bonds early because of presently favorable market conditions.

The new series A bonds would be dated January 1, 1953, and would mature January 1, 1973. They would be sold by competitive bidding, with the interest rate to be set by such bids. There are provisions for a sinking fund.

Division 4 of the I.C.C. has **authorized:**

BALTIMORE & OHIO.—To assume liability for $5,505,000 of series FF equipment trust certificates, the first installment of a proposed $10,005,000 issue. The road plans to acquire 60 diesel-electric locomotive units, 11 sleeping cars and three Budd cars costing an estimated $12,509,323. The present issue of certificates will be applied toward payment of 41 of the diesel-electric units, costing an estimated $6,895,451. The certificates, dated December 1, will mature in 15 annual installments of $367,000 each, beginning December 1, 1953 (*Railway Age*, November 17, page 18). Division 4's report approved sale of the certificates at 99.84 with

(*Continued on page* 59)

(*Continued from page 54*)

interest at 3⅛ per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds to the road approximately 3.17 per cent. The certificates were reoffered to the public at prices yielding from 2.35 to 3.125 per cent, according to maturity.

Security Price Averages

	Dec. 16	Prev. Week	Last Year
Average price of 20 representative railway stocks	69.00	67.82	54.15
Average price of 20 representative railway bonds	95.72	95.13	90.02

Dividends Declared

ATLANTA & WEST POINT.—$2, payable December 17 to holders of record December 5.

CANADA SOUTHERN.—$1.50, semiannual, payable February 2, 1953, to holders of record December 26.

CHICAGO, BURLINGTON & QUINCY.—$4, payable December 29 to holders of record December 18.

DAYTON & MICHIGAN.—8% preferred, $1, quarterly, payable January 2, 1953, to holders of record December 15.

DETROIT, HILLSDALE & SOUTHWESTERN.—$2, semiannual, payable January 5, 1953, to holders of record December 23.

EAST PENNSYLVANIA.—$1.50, semiannual, payable January 20, 1953, to holders of record December 31.

ILLINOIS CENTRAL.—Leased line 4% guaranteed, $2, semiannual, payable January 1, 1953, to holders of record December 11.

MAHONING COAL.—common, $12.50, payable December 30 to holders of record December 22; 5% preferred, $1.25, semiannual, payable January 2, 1953, to holders of record December 22.

NEW YORK CENTRAL.—50¢, payable January 15, 1953, to holders of record December 19.

PIEDMONT & NORTHERN.—75¢, quarterly; extra, $3, both payable December 20 to holders of record December 10.

PROVIDENCE & WORCESTER.—$2.50, quarterly, payable December 31 to holders of record December 15.

TENNESSEE, ALABAMA & GEORGIA.—50¢, payable December 22 to holders of record December 8.

TEXAS & PACIFIC.—common, $1.25, quarterly; extra, $2; 5% preferred, $1.25, quarterly, all payable December 29 to holders of record December 22.

TUNNEL R.R. OF ST. LOUIS.—$3, semiannual, payable January 2, 1953, to holders of record December 15.

RAILWAY OFFICERS

EXECUTIVE

NYC Appoints Three New Vice-Presidents

Karl A. Borntrager, Arthur E. Baylis and Ernest C. Nickerson have been elected vice-presidents of the New York Central System at New York, effective January 1, 1953 (*Railway Age*, December 15, page 7). Gustav Metzman, chairman, and Boynton S. Voorhees, vice-president, will retire on that date under the pension rules of the company. The position of chairman will be discontinued.

Mr. Borntrager, now general manager of the Michigan Central district of the NYC at Detroit, will be vice-president in charge of operations and maintenance for the 11,000-mile, 11-state NYC system. He succeeds James J. Frawley, who will continue as vice-president with special duties assigned by the president, including a special survey of passenger service operations. Martin J. Alger, who has been vice-president—traffic since January 1934, becomes vice-president—staff. He will exercise supervision over certain of the company's subsidiaries, and assist the president in carrying out executive functions of the company. Frank J. Jerome, executive vice-president, will become vice-president with jurisdiction over engineering, development, research and real estate, including the Central's New York City hotels and other properties. In this position, Mr. Jerome, in addition to other responsibilities, will absorb the duties of Mr. Voorhees, and the position of executive vice-president will be discontinued.

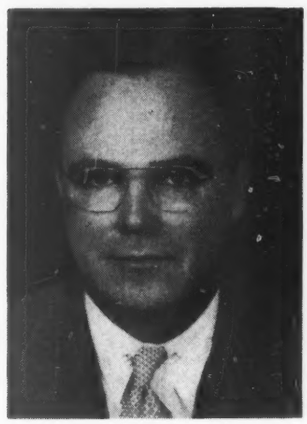
Karl A. Borntrager

Mr. Borntrager was born at Townville, Pa., on January 2, 1892, and was graduated from Ohio State University (C.E., 1916). He has been with the Central since 1917 in a succession of engineering and operating department positions. Mr. Borntrager was appointed division superintendent at Columbus, Ohio, in November 1939, transferring to Rochester, N.Y., in July 1940 and to Albany, N.Y., in April 1943. He was appointed assistant to vice-president at Chicago on April 15, 1947, manager freight transportation at New York on September 1, 1947, general manager of the Big Four district at Cincinnati on March 1, 1950, and general manager of the MC district at Detroit on November 1, 1950.

Arthur E. Baylis

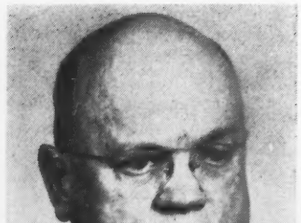
The Central's traffic department is being divided into two separate departments, with a vice-president in charge of each. Mr. Baylis becomes vice-president in charge of the freight traffic department, with jurisdiction over freight service sales and rates. Born at Colorado Springs, Colo., on April 9, 1910, Mr. Baylis was graduated from Colorado College (A.B., 1932) and Tufts College (M.A., 1934). He continued as an instructor in transportation and economics at Tufts until he joined the NYC in 1935 as a freight traffic staff assistant. After becoming assistant to the traffic vice-president, he was furloughed in 1942 for government service with the Office of Defense Transportation as assistant director of its Railway Transport Division. Returning to the Central in 1944, he was named foreign freight traffic manager, and has been assistant vice-president of freight traffic since January 1, 1952.

Mr. Nickerson, now general traffic manager of the Chicago & North West-



Ernest C. Nickerson

ern at Chicago, and previously traffic vice-president of the New York, New Haven & Hartford, becomes vice-president in charge of the passenger traffic department. He will have jurisdiction over passenger service, sales and fares, and all other matters of a passenger train service nature, including dining car service, passenger station operations in larger cities served by the Central system, and "head-end traffic." His specific responsibility will be to reduce the overall deficit from passenger-train operation, and to achieve "an ever-higher standard of excellence" on the Central's numerous "name" trains. Mr. Nickerson was born at Chatham, Mass., on August 4, 1909, and attended Philips Exeter Academy (1928), Harvard College (B.S., 1932), and Harvard Graduate School of Business Administration (M.B.A., 1934). After service with Eastern Steamship Lines, he joined the New Haven as a traffic representative in 1936. He was with the New Haven in various traffic department positions, becoming vice-pres-

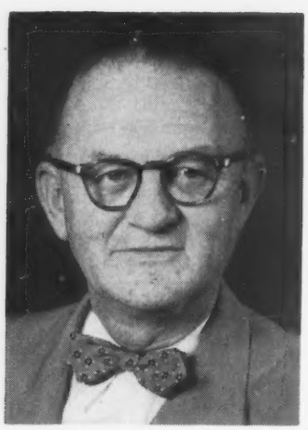


As reported in *Railway Age* November 3, page 103, G. B. Moser has been appointed president of the Pittsburgh & Ohio Valley, a subsidiary of the Pittsburgh Coke & Chemical Co., at Pittsburgh. Mr. Moser started his railroad career with the Monongahela in 1913 and was trainmaster of the Pittsburgh, Chartiers & Youghiogheny at the time of his recent appointment.

ident—traffic in 1948 and vice-president and assistant to president in 1949, before joining the C&NW in 1950 as general traffic manager.

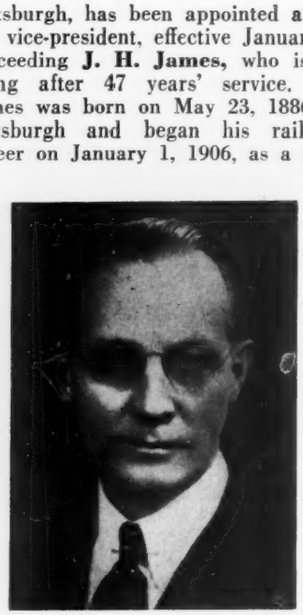
Directors of the CHICAGO, BURLINGTON & QUINCY have elected **F. L. Kartheiser,** assistant to president at Chicago, as vice-president—executive department, and **A. W. Lavidge,** comptroller, as vice-president and comptroller. **Henry H. Urbach,** general superintendent motive power and machinery, has been appointed assistant vice-president — mechanical operations.

Clarence M. Gordon, general auditor of the PITTSBURGH & LAKE ERIE at



George T. Lane, assistant to vice-president, special service, of the Southern System, has been promoted to assistant vice-president, special service, with headquarters remaining at Washington, D. C. Mr. Lane's jurisdiction has been extended to include operation of the road's dining cars.

Pittsburgh, has been appointed assistant vice-president, effective January 1, succeeding **J. H. James,** who is retiring after 47 years' service. Mr. James was born on May 23, 1886, at Pittsburgh and began his railroad career on January 1, 1906, as a sten-



J. H. James

ographer in the engineering department of the P&LE. He became chief clerk to general manager in February 1916; chief clerk to vice-president and general manager on July 16, 1920; purchasing agent on April 15, 1928; assistant to vice-president on March 15, 1944; and assistant vice-president on October 1, 1949.

Walter G. Abriel, assistant vice-president of personnel and public relations of the NEW YORK CENTRAL at New York, will retire on December 31, after 50 years of railroad service. Mr. Abriel entered railroad service in 1902 with the Delaware & Hudson and

Walter G. Abriel

joined the NYC in 1904 as telegrapher at Towners, N.Y., subsequently serving as train dispatcher at White Plains, N.Y., and chief clerk in the personnel department. After a series of promotions, he was named assistant to vice-president of personnel in 1931, assistant manager of personnel in 1942, manger of personnel in 1943, and assistant vice-president of personnel in 1951.

FINANCIAL, LEGAL & ACCOUNTING

As *Railway Age* reported on November 10, **V. K. Boe,** tax agent of the Soo LINE, has been appointed general tax agent. Mr. Boe entered railway service with the Soo Line in 1924 as secretary to vice-president and general manager. Three years later he was appointed tax adjuster. In 1931 he was named tax agent, a position he held until his recent appointment.

As *Railway Age* reported November 17, **Elbert Clark,** auditor of the MISSOURI-KANSAS-TEXAS, has been appointed general auditor. Mr. Clark joined the Katy in 1918 as a yard clerk at Parsons, Kan. He held a number of clerical positions until 1923,

Elbert Clark

when he transferred to the office of superintendent. There he served as clerk, timekeeper, and accountant until 1928. He was then transferred to the accounting department at St. Louis as traveling auditor, and was appointed auditor in 1948.

Paul F. Kraber, auditor disbursements of the PITTSBURGH & LAKE ERIE, has been appointed general auditor, effective January 1, 1953, with headquarters as before at Pittsburgh, succeeding **Clarence M. Gordon,** who has been named assistant vice-president. **William J. Powelson,** assistant to auditor disbursements, succeeds Mr. Kraber as auditor disbursements.

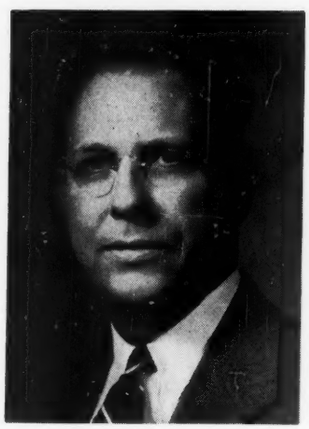
Mr. Powelson was born on September 12, 1904, at Midway, Pa., and began his P&LE career as a clerk on March 3, 1922. He has been assistant to auditor disbursements since October 1.

As reported in *Railway Age* November 3, page 104, **Jewett Frederick Andrews** has been appointed assistant general auditor of the CHESAPEAKE & OHIO, and **Ronald Rádstock Stant** has been appointed auditor of revenues,

both at Richmond, Va. Mr. Andrews was born on September 29, 1891, at Staunton, Va., and entered railroad service on March 1, 1905, as messenger with the C&O at Staunton. He subsequently served as telegraph operator, relief agent and operator, operator-clerk, relief agent and operator, clerk, and traveling auditor. After service with the United States Army during World War I, Mr. Andrews returned to the C&O as traveling auditor, later serving as chief clerk to auditor station accounts, manager Zone Accounting Bureau, assistant auditor station accounts, auditor station accounts and overcharge claims and assistant comptroller, all at Richmond. He was appointed comptroller at Cleveland in April 1943. auditor at Richmond in May 1946, and special auditor at Richmond in January 1950.

Mr. Stant was born at Sanford, Va., on November 18, 1902, and entered railroad service on April 9, 1917, as messenger with the C&O at Newport News, Va. He subsequently served as clerk, accountant, traveling auditor, chief traveling auditor and auditor of station accounts and overcharge claims at Richmond. On January 1, 1952, Mr. Stant was named auditor of capital expenditures at Richmond.

As reported in *Railway Age* November 3, page 104, **Clarence Elmer Weaver, Jr.,** has been appointed general auditor of the Chesapeake district of the CHESAPEAKE & OHIO at Richmond. Va. Mr. Weaver was born on April 5, 1904, at Atlanta, Ga., and entered railroad service on July 24, 1922, as clerk on the Clifton Forge division of the C&O. He subsequently



Clarence Elmer Weaver, Jr.

served in various clerical capacities at Richmond until December 1, 1947, when he became assistant auditor of station accounts and overcharge claims. Mr. Weaver was appointed auditor of station accounts and overcharge claims on January 1, 1950, and exactly two years later he became auditor of revenues, which position he held until his recent appointment.

Francis J. Melia, assistant western general counsel of the UNION PACIFIC, has been named general solicitor. **Lawrence W. Hobbs,** general attorney, succeeds Mr. Melia. Both men will be located at Omaha. Mr. Melia joined the UP as a clerk in the dining car and hotel department in 1917. While serving in that capacity he studied stenography and then law at night school, passing bar examinations

Francis J. Melia

in 1934. In 1936 he entered the railroad's legal department, where he has served successively as assistant general attorney, general attorney and assistant western general counsel.

Mr. Hobbs became associated with the UP in 1912. After studying law he was appointed attorney in 1931, and in 1941 was promoted to general attorney.

OPERATING

F. S. Farnham has been appointed trainmaster of the Syracuse-Rochester division of the NEW YORK CENTRAL.

George H. Emery, acting superintendent of the marine department of the LEHIGH VALLEY since July 16, has been appointed superintendent of that department at Jersey City, N.J.

The NEW YORK, NEW HAVEN & HARTFORD has announced appointment of **Stephen P. McDonough** as terminal manager of the new BOSTON TERMINAL CORPORATION, operators of South Station. Mr. McDonough will continue as superintendent of the Boston division of the New Haven.

Oscar R. Hammit, trainmaster of the ATCHISON, TOPEKA & SANTA FE, has been named superintendent of the Los Angeles Terminal and Harbor district, to succeed **John P. Donovan,** who has retired. Mr. Hammit has been acting superintendent at Los Angeles since May. Mr. Hammit joined the Santa Fe as a telegraph office messenger at Clovis, N.M., in 1924. He served as telegraph operator at a number of points until 1940, when he was named dispatcher at Needles, Cal. In 1942 he became chief dispatcher there. One year later he was appointed trainmaster at Needles, transferring to Los Angeles in 1950.

Mr. Donovan began his railroad career in 1909, and joined the Santa Fe as a yard helper at Los Angeles in 1925. After serving in numerous positions, he was promoted to general yardmaster in 1936. In 1941 he became a trainmaster, and four years later was appointed assistant superintendent, becoming superintendent in 1949.

As reported in *Railway Age* November 10, page 73, **Samuel Joseph Massey, Jr.,** has been named general manager of the GRAND TRUNK WESTERN, a CANADIAN NATIONAL subsidiary, at Detroit. Mr. Massey was born at Philadelphia, Miss., on August 29, 1907, and entered railroad service in 1926 as a yard clerk with the Illinois

Samuel Joseph Massey, Jr.

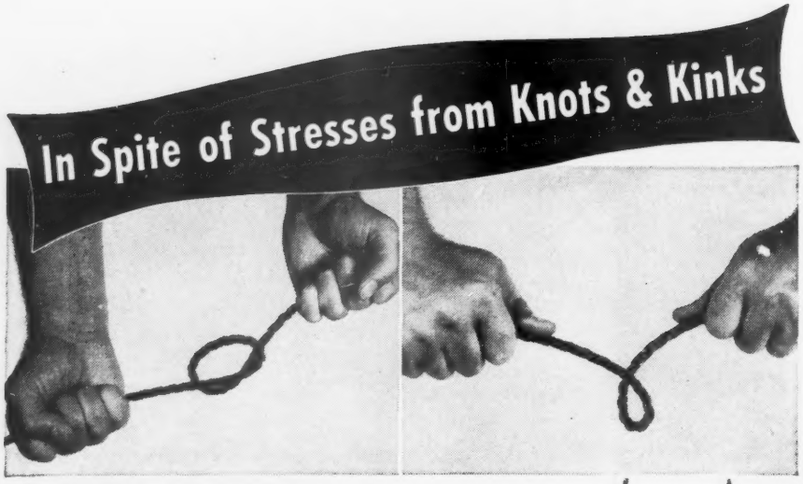
Central at Greenville, Miss. After serving in various capacities, he was appointed assistant trainmaster at Vicksburg in 1940, subsequently becoming trainmaster at Vicksburg, Louisville, Ky., and McComb, Miss. In 1948 he was appointed superintendent of the IC terminal properties at New Orleans, which position he held until his recent appointment on the GTW.

TRAFFIC

H. E. Dunham, assistant general freight agent of the MISSOURI PACIFIC at St. Louis, has retired. He has been succeeded by **O. C. Weber.**

James J. Harr, assistant general agent, freight department, SOUTHERN PACIFIC, at Chicago, has been appointed general agent at Buffalo, N.Y., succeeding **T. B. Brennan,** retired. **Peter S. Reardon** has been appointed district freight agent at Buffalo and **Robert E. Wynkoop** has been appointed district passenger agent at New York.

J. C. Harms, freight traffic manager —rates and divisions of the CHESA-



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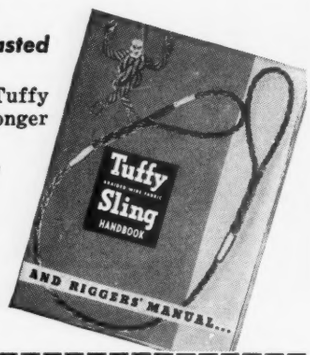

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PEAKE & OHIO, at Detroit, has retired. He has been succeeded by **C. J. McDonald,** assistant freight traffic manager. Mr. Harms entered railway service with the Pere Marquette (now C&O) as a messenger in 1904. After serving in a series of clerical positions he was appointed assistant general

J. C. Harms

freight agent at Detroit in 1927. Four years later he became general freight agent there, and in 1939 was promoted to assistant freight traffic manager at Chicago. In 1945 he was appointed assistant freight traffic manager at Detroit, and a year later was named freight traffic manager.

Mr. McDonald joined the C&O at

C. J. McDonald

Detroit in 1927. From July to October 1947 he was special representative in the office of vice-president—traffic at Cleveland, returning to Detroit as assistant general freight agent. In 1949 he was appointed general freight agent, and in April 1952 became assistant freight traffic manager.

As reported in *Railway Age* November 24, page 68, **Richard F. Ronnan** has been appointed assistant freight traffic manager—sales of the SOO LINE at Minneapolis and **William C. Giese** has been named general freight agent—sales. Mr. Ronnan joined the Soo as a yard clerk at St. Paul in 1910

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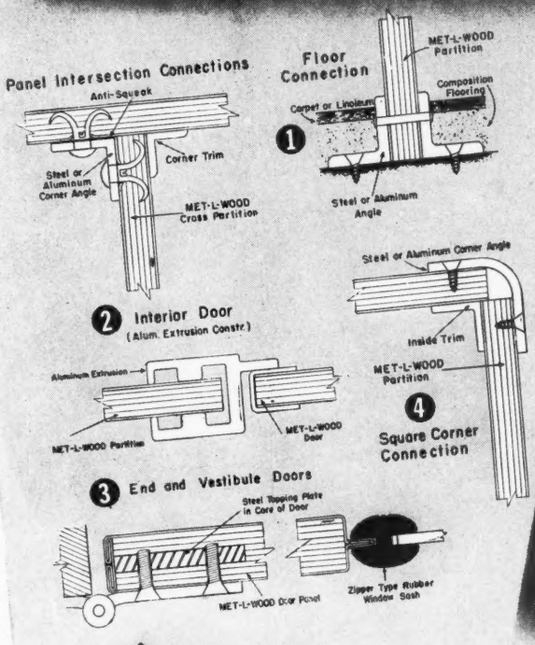

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and transferred to the traffic department two years later as a rate clerk. Subsequently he served as city freight agent at Duluth, chief clerk at Milwaukee, traveling freight agent at Cincinnati and Minneapolis, and district freight agent. He was appointed division freight agent in 1950 and assistant general freight agent—sales and service in January 1952.

Mr. Giese joined the Soo Line in 1921 as assistant ticket agent at Milwaukee and was appointed traffic agent in 1933, general agent in 1938 and assistant general freight agent in 1945.

MECHANICAL

O. E. Ward, superintendent motive power of the CHICAGO, BURLINGTON & QUINCY, at Chicago, will retire January 1. Mr. Ward began his railroad career with the Burlington as a locomotive fireman in 1902, subsequently serving as locomotive engineman, road foreman and assistant fuel supervisor. In 1919 he was promoted to assistant superintendent of motive power at Lincoln, Neb.; in 1920 to air brake instructor and acting master mechanic, and in 1922 to assistant master mechanic at Galesburg, Ill. From 1923 to 1926 he was master mechanic at Alliance, Neb., and then superintendent motive power at Lincoln until he was appointed to serve in the same capacity at Chicago in 1927. After his retirement he will accompany Ralph Budd, Chicago Transit Authority chairman, to Brazil to study transportation problems for the Brazilian government (*Railway Age*, December 8, page 14).

PURCHASES & STORES

A. D. Stewart, assistant general storekeeper of the NORFOLK & WESTERN, has been appointed general storekeeper, with headquarters as before at Roanoke, Va., succeeding the late **George P. Butcher. M. F. Stewart,** storekeeper at Roanoke, succeds **A. D. Stewart** as assistant general storekeeper there.

ENGINEERING

Oscar C. Benson, assistant division engineer of the BOSTON & MAINE at Concord, N.H., has been appointed division engineer of the Terminal division at Boston, succeeding the late **Raymond H. Mitchell.**

R. H. Morrison, principal assistant engineer of the BANGOR & AROOSTOOK at Houlton, Me., has been appointed assistant chief engineer. **Palmer H. Swales,** assistant engineer, has been named principal assistant engineer.

SPECIAL

Leo F. Delventhal, Jr., has been appointed research specialist for the WESTERN PACIFIC. Mr. Delventhal began his railroad career as a mail clerk in the company's transportation department in 1934. He advanced through that department as car distributor, assistant scale inspector, and car service inspector, and was transportation inspector before assuming his present position.

Kenneth W. Barbian, formerly of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC, has been named chief fire inspector of the CHICAGO, ROCK ISLAND & PACIFIC.

OBITUARY

Robert E. Oberdorf, 60, assistant to chief engineer of the NICKEL PLATE at Cleveland, died on December 8 at a hospital in suburban Lakewood, Ohio. Mr. Oberdorf was born December 27, 1891, at Sunbury, Pa., and was graduated from Bucknell University in 1915 with a degree in civil engineering. He began his railroad career in 1916 as an instrumentman at Frankfort, Ind., for the Toledo, St. Louis & Western (now the Clover Leaf district of the Nickel Plate). He later worked as an assistant engineer and chief draftsman there. He was named assistant division engineer of the Lake Erie & Western district at Frankfort in 1937, district engineer of the Clover Leaf district in 1940, district engineer of the LE&W district in 1945, and assistant to chief engineer at Cleveland in 1947.

Adoniram Judson Van Ornum district freight agent of the CLINCHFIELD, died on December 11 at Chicago.

Gerard B. Townsend, 50, secretary and treasurer of the ERIE at Cleveland, died on December 12 at St. Luke's Hospital, after an emergency operation. Mr. Townsend was born at New York on April 3, 1902, and attended Princeton University (A.B., 1923). Mr. Townsend began his career as solicitor for the Munson Steamship Line in 1923 and two years later became a salesman for T. du Charne Silk Company. He then served as statistician for the Bankers Trust Company of New York, Mackay & Co., R. W. Pressprich & Co., and the Chemical Bank & Trust Co., successively. In 1933 Mr. Townsend became a salesman for Joseph Walker & Sons, New York, and two years later was appointed manager of the Railroad department of Lazard Freres & Co., New York. He was named supervisor of loans and manager of the Railroad department of the Union Trust Company of Pittsburgh in 1943. He joined the Erie in 1945 as assistant to president, becoming treasurer in July 1946 and secretary and treasurer in January 1947.

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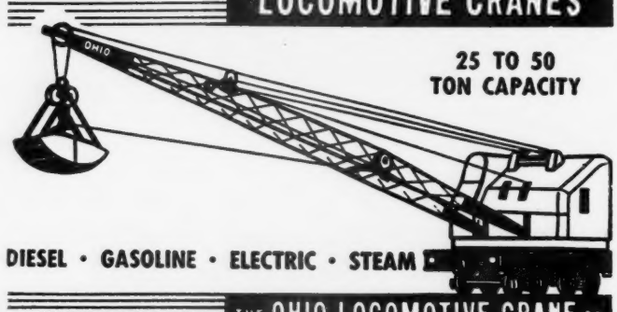

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